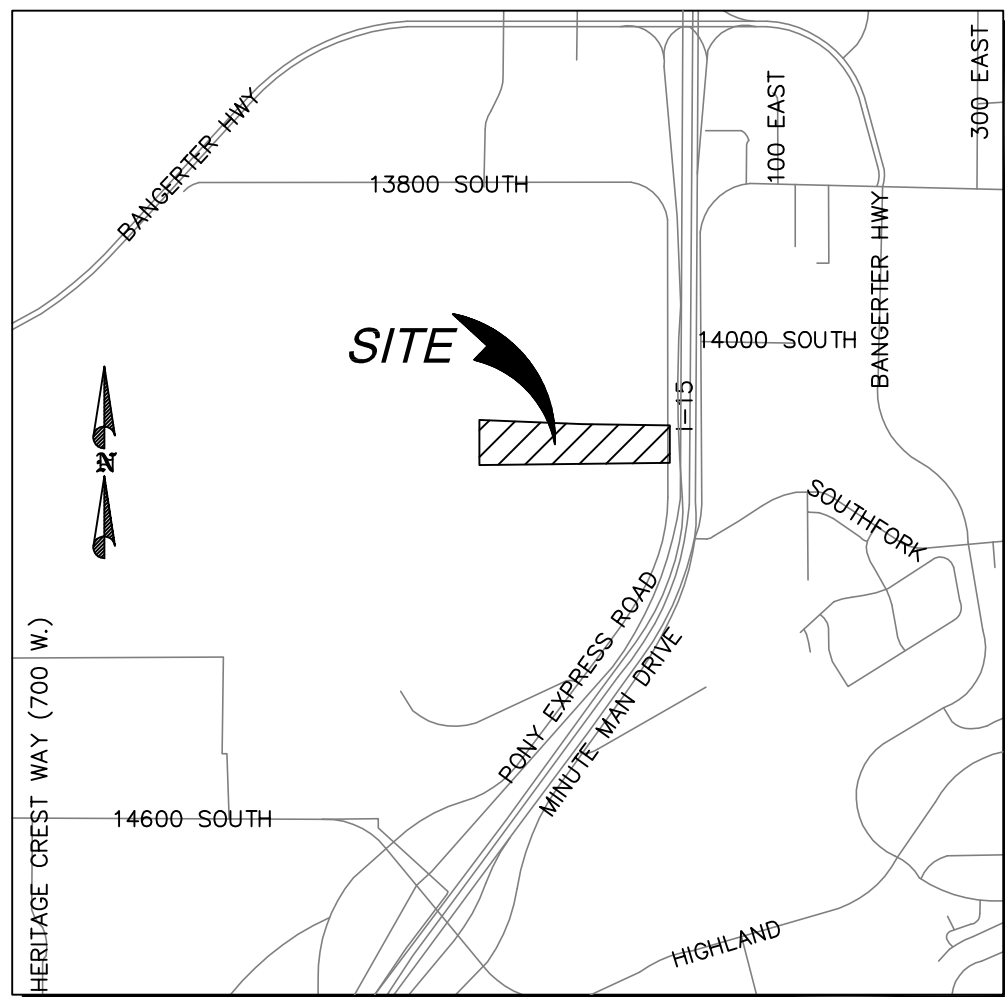


# UCI PRODUCTION WAREHOUSE

UTAH DIVISION OF FACILITIES, CONSTRUCTION, AND MANAGEMENT  
PROJECT NUMBER 07284110



VICINITY MAP



## CONSTRUCTION NOTES

### GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH UTAH DIVISION OF FACILITIES, CONSTRUCTION AND MANAGEMENT (DFCM). SEE SEWER AND WATERLINE NOTES FOR ADDITIONAL REQUIREMENTS. CONTRACTOR TO OBTAIN CURRENT STANDARDS AT DFCM WEB SITE.
2. CONTRACTOR RESPONSIBLE FOR PROTECTION OF ALL UTILITIES SHOWN OR NOT SHOWN.
3. CONTRACTORS SHALL ATTEND ALL PRE-CONSTRUCTION CONFERENCES AND ABIDE BY DIRECTIVES AND DECISIONS MADE THEREIN.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC SAFETY AND OSHA STANDARDS.
5. LOCATION AND INSTALLATION OF GAS, POWER, TELEPHONE, AND CABLE LINES TO BE DONE IN ACCORDANCE WITH STANDARDS.
6. CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS FOR WATER AND FIRE, OWNER WILL OBTAIN PERMIT AND PAY ANY FEES FOR ROCKY MOUNTAIN POWER.
8. CONTRACTOR IS RESPONSIBLE TO KEEP A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND THE UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT ON SITE DURING THE COURSE OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THESE STATE REQUIRED DOCUMENTS.
9. WHEN INSTALLING PROPOSED UTILITIES, CONTRACTOR TO IDENTIFY POTENTIAL CONFLICTS BETWEEN STORM DRAIN, CULINARY WATER, AND/OR SECONDARY WATER. IN ALL CASES, STORM DRAIN DESIGN SHALL GOVERN.
10. IF CONSTRUCTION WORK IS IN EXISTING ASPHALT AREAS, CONTRACTOR TO SAWCUT EXISTING ASPHALT FOR MATCH.
11. THE BENCHMARK FOR THIS PROJECT IS THE FOUND WITNESS VORNER MARKED "115" PER DOMINION ENGINEERING SURVEY DATED JUNE 28, 2007, HAVING AN ELEVATION OF 4473.64'.

### WATERLINE NOTES:

12. CULINARY WATER SYSTEMS TO BE CONSTRUCTED PER DFCM AND DRAPER CITY STANDARDS AND SPECIFICATIONS.
13. CULINARY WATERLINES TO BE PVC C-900 (CLASS 150 P.S.I.) UNLESS OTHERWISE NOTED.
14. THE CULINARY WATER SERVICE LATERAL IS TO BE A 1" WITH A 1" METER.
15. ALL CULINARY WATERLINES SHALL BE 48" BELOW FINISHED GRADE TO TOP OF PIPE.
16. ALL VALVE COVERS TO BE RAISED OR LOWERED TO FINISHED GRADE.
17. THE CULINARY WATER SERVICE LATERAL IS TO INCLUDE A BRASS SADDLE; BALL CORP. STOP; 1" LATERAL, METER YOKE WITH LOCKING WINGS, DOUBLE CHECK VALVE BACKFLOW PREVENTION DEVICE; CONCRETE OR ADS METER PIT; AND C.I. RING AND COVER WITH 2" HOLE.
18. CONTRACTOR TO NOTIFY DRAPER CITY FOR CHLORINE TEST PRIOR TO FLUSHING LINES. CHLORINE TESTING TO BE DONE IN ACCORDANCE WITH DRAPER CITY STANDARDS AND SPECIFICATIONS.
19. CONTRACTOR TO ADJUST DEPTH OF WATERLINE TO CLEAR STORM DRAIN AND SEWER LINES.

### SEWER NOTES:

20. ALL SANITARY SEWER CONSTRUCTION AND MATERIALS SHALL CONFORM TO SOUTH VALLEY SEWER DISTRICT STANDARDS AND SPECIFICATIONS.
21. SEWER LATERAL PIPE TO BE 3" PVC ASTM 3034 SDR 35.
22. SEWER LATERAL TRENCH, AND COMPACTED TO 85% OF THE MODIFIED PROCTOR VALUE.

### STORM DRAIN NOTES:

23. ALL STORM DRAIN PIPE SHALL BE HDPE (ADS N-12), UNLESS OTHERWISE NOTED.
24. ALL STORM DRAIN JOINTS ARE TO BE RATED TO 20 PSI.

## DRAWING INDEX

SHEET	DESCRIPTION
COVER	COVER PAGE
CIVIL	
CE101	SITE, GRADING AND DRAINAGE PLAN
CE102	EROSION CONTROL PLAN
CE103	SITE PLAN DETAILS
ARCHITECTURAL	
AE101	FLOOR PLAN
AE102	ROOF PLAN
AE111	REFLECTION CEILING PLAN
AE201	EXTERIOR ELEVATION
AE202	EXTERIOR ELEVATION
AE301	BUILDING SECTION
AE302	WALL SECTION
AE303	WALL SECTION
AE401	ENLARGED FLOOR PLAN
AE402	ENLARGED FLOOR PLAN
AE501	DETAILS
STRUCTURAL	
S101	GENERAL STRUCTURAL NOTES
S102	GENERAL STRUCTURAL NOTES
S201	FOOTING AND FOUNDATION PLAN
S202	MEZZANINE FRAMING PLAN DETAILS
S301	SCHEDULES
S501	FOOTING AND FOUNDATION DETAILS
S502	FOOTING AND FOUNDATION DETAILS
MECHANICAL	
MH001	LEGEND AND NOTES
MH101	FLOOR PLAN
MH501	DETAILS
MH601	SCHEDULE
PP101	PLUMBING FLOOR PLAN
PP401	PLUMBING FLOOR PLAN
ELECTRICAL	
EG001	SYMBOLS
EG002	DETAILS
EG003	DETAILS AND RISER DIAGRAMS
ES101	SITE PLAN
EL101	LIGHT PLAN
EP101	POWER PLAN
EP401	ENLARGED DRAWING AND SCHEDULES
EP701	ONE LINE AND RISER DRAWINGS
EP801	PANEL SCHEDULE AND ENERGY CODES

## CODE ANALYSIS

APPLICABLE CODES			
Year		Year	
International Building Code	2006	National Electrical Code	2005
International Mechanical Code	2006	Uniform Code for Building Conservation	N/A
International Plumbing Code	2006	ADA Accessibility Guidelines	2006
International Fire Code	2006		
International Energy Conservation Code	2006		

A. Occupancy and Group: S-1 B(ACCESSORY TO S-1)  
Change in Use: Yes ☐ No ☒ Mixed Occupancy: Yes ☒ No ☐  
Special Use and Occupancy (e.g. High Rise, Covered Mall): N/A

B. Seismic Design Category: D Design Wind Speed: 90 mph

C. Type of Construction (circle one):

I A I B II A II B III A III B IV HT V A V B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):  
North: 0 South: 0 East: 0 West: 0

E. Mixed Occupancies: X Nonseparated Uses: X

F. Sprinklers:  
Required: X Provided: X Type of Sprinkler System: \_\_\_\_\_

G. Number of Stories: 1 Building Height: 25' (APPROX)

H. Actual Area per Floor (square feet): 24,300 S.F.

I. Tabular Area: 17,500 S.F.

J. Area Modifications:

$$A_a = A_1 + \left[ A_1 I_1 \right] + \left[ A_1 I_2 \right] \quad I_1 = \left[ \frac{F}{P} - 0.25 \right] \frac{W}{30}$$

NOTE: FORMULA MODIFIED TO MATCH THAT GIVEN IN UTAH STATE CODE AMENDMENTS  
NOTE: W/30 ALLOWED TO EQUAL 2. PER SECTION 506.2.1 EXCEPTION

b) Sum of the Ratio Calculations for Mixed Occupancies:

$$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$$

c) Total Allowable Area for:

- 1) One Story: 96,250 S.F.
- 2) Two Story:  $A_a(2)$  N/A
- 3) Three Story:  $A_a(3)$  N/A

d) Unlimited Area Building: Yes ☐ No ☒ Code Section: N/A

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0		Floors - Ceiling Floors	N/A	
Interior Bearing Walls	0		Roofs - Ceiling Roofs	0	
Exterior Non-Bearing Walls	0		Exterior Doors and Windows	0	
Structural Frame	0		Shall Enclosures	N/A	
Partitions - Permanent	0		Fire Walls	N/A	
Fire Barriers	N/A		Fire Partitions	N/A	
			Smoke Partitions	N/A	

L. Design Occupant Load: 49 (500 S.F. PER OCC.)  
Exit Width Required: 32' Exit Width Provided: 72'

M. Minimum Number of Required Plumbing Facilities:

- a) Water Closets - Required (m) 1 (f) 1 Provided (m) 1 (f) 1
- b) Lavatories - Required (m) 1 (f) 1 Provided (m) 1 (f) 1
- c) Bath Tubs or Showers: N/A
- d) Drinking Fountains: 1 Service Sinks: 1

### FOOTNOTES:

- 1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through X - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.
- 2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings, Including, but not limited to:
  - a) High Rise Requirements.
  - b) Atriums.
  - c) Performance Based Criteria.
  - d) Means or Egress Analysis.
  - e) Fire Assembly Locator Sheet.
  - f) Exterior and Interior Accessibility Route.
  - g) Fire Stopping, Including Tested Design Number.

3) deferred Submittals

- 1) STEEL BUILDING
- 2) FIRE SYSTEM
- 3)



## WILDING ENGINEERING, INC.

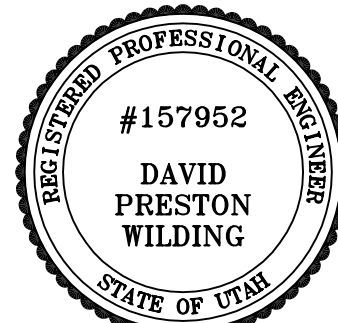
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## UCI PRODUCTION WAREHOUSE

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UTAH DIVISION OF  
FACILITIES, CONSTRUCTION  
AND MANAGEMENT (DFCM)  
4110 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

DFCM  
PROJECT NO. 07284110  
CONTRACT NO. 087137

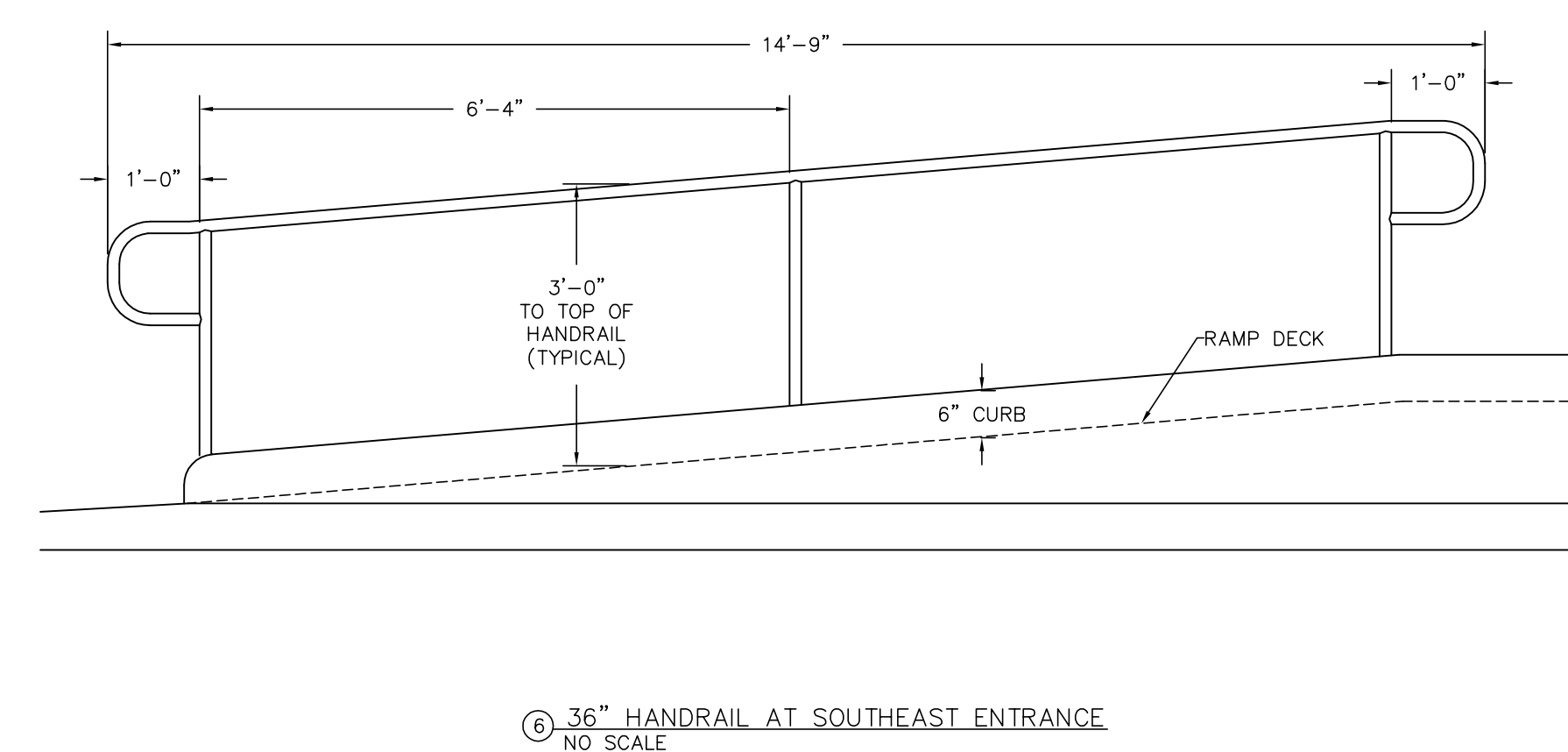
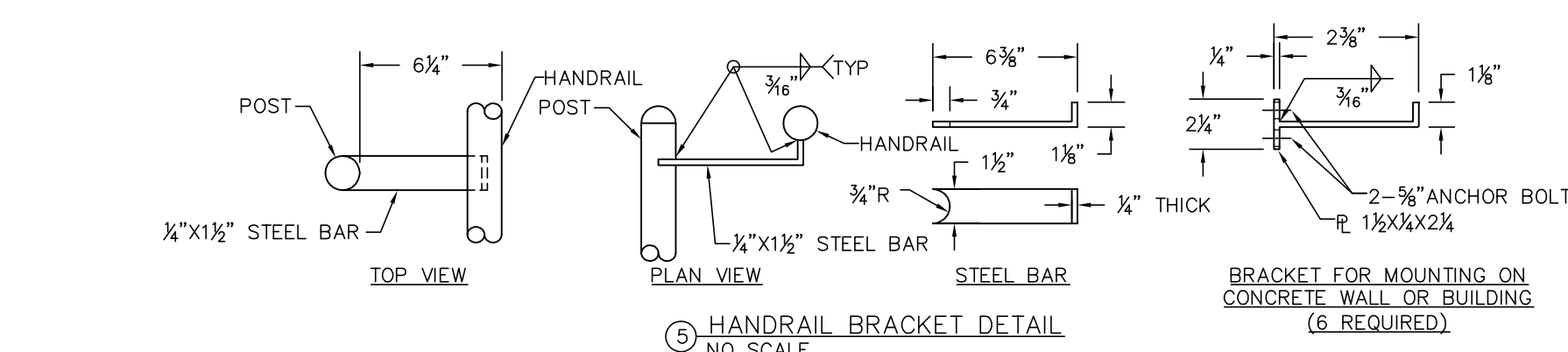
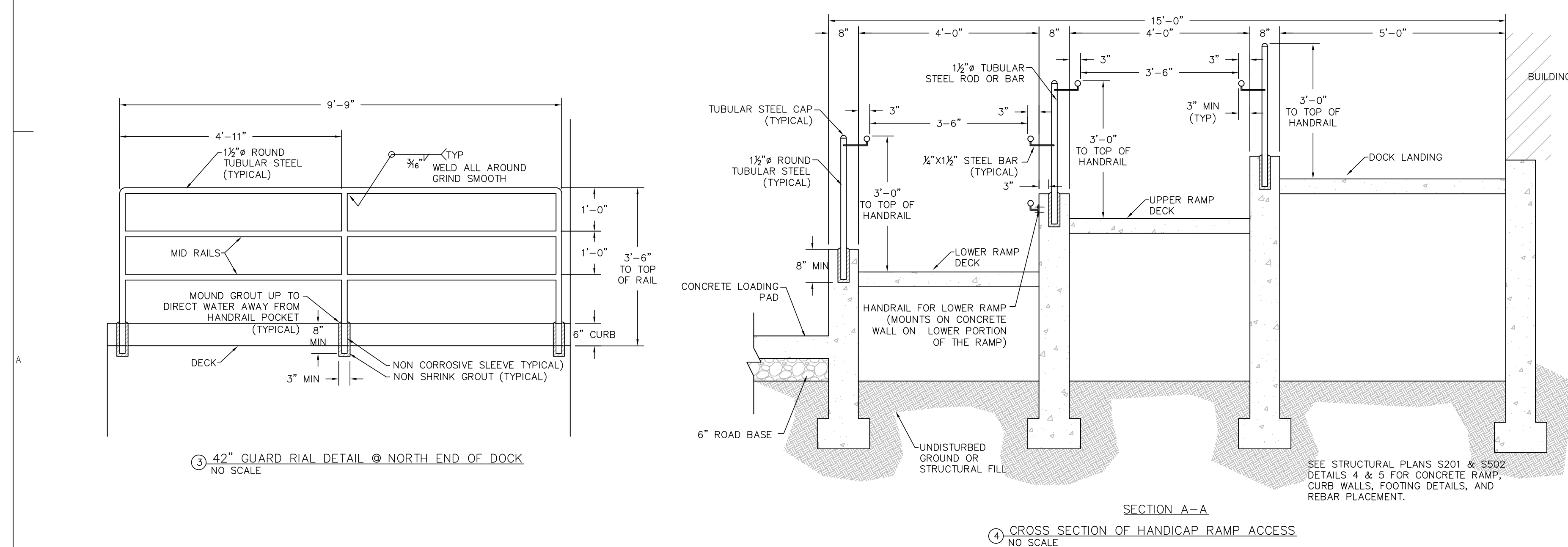
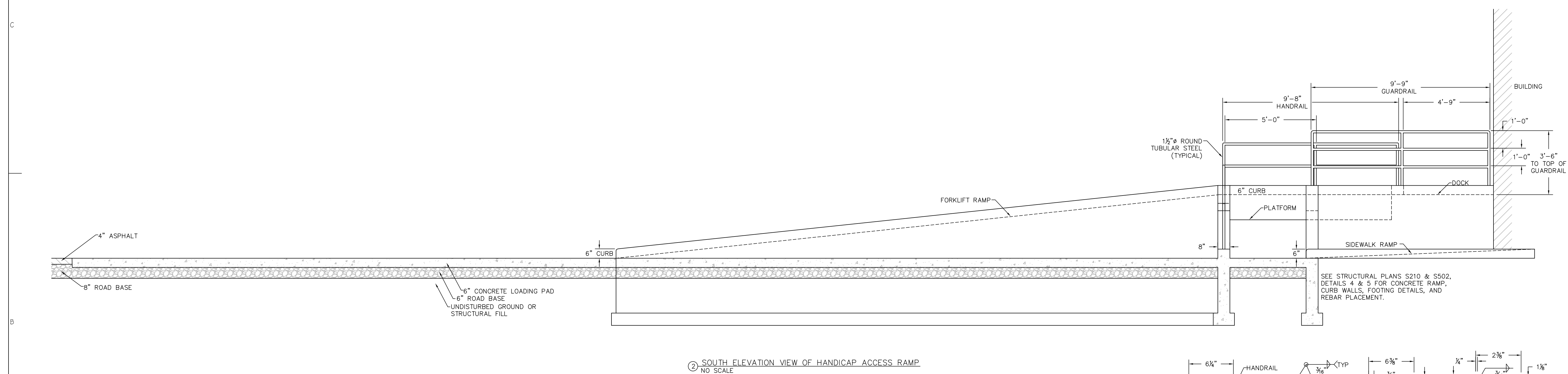
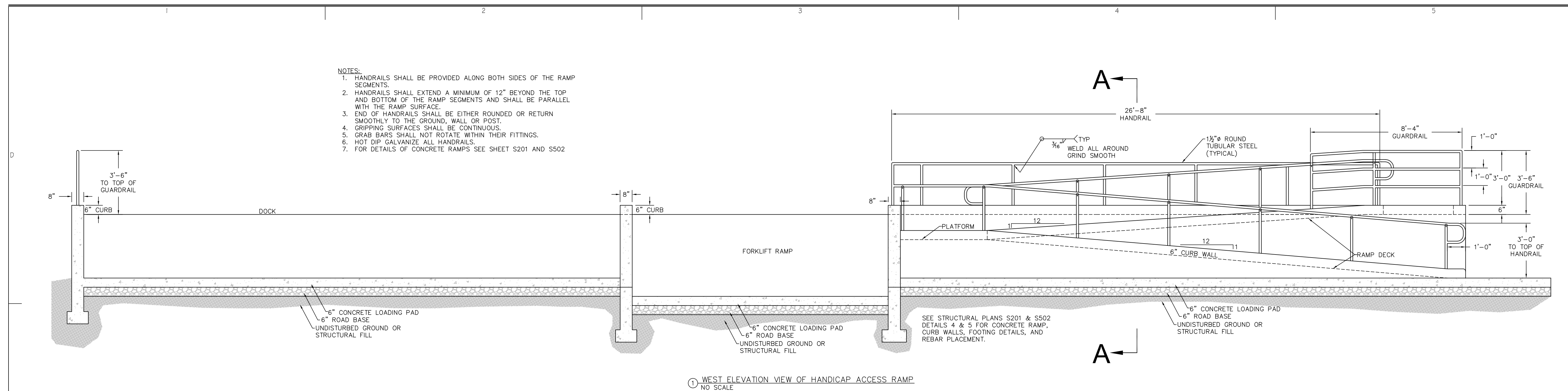
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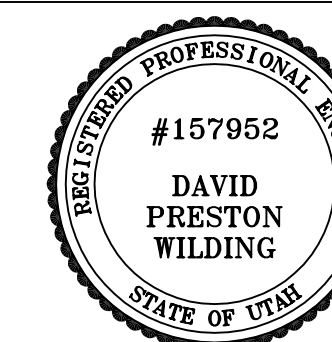
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UCI PRODUCTION  
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UTAH DIVISION OF  
FACILITIES, CONSTRUCTION  
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DFCM  
PROJECT NO. 07284110  
CONTRACT NO. 087137

02/22/08	RELEASED TO CLIENT
03/04/08	UPDATE HAND/GUARD RAIL DETAIL

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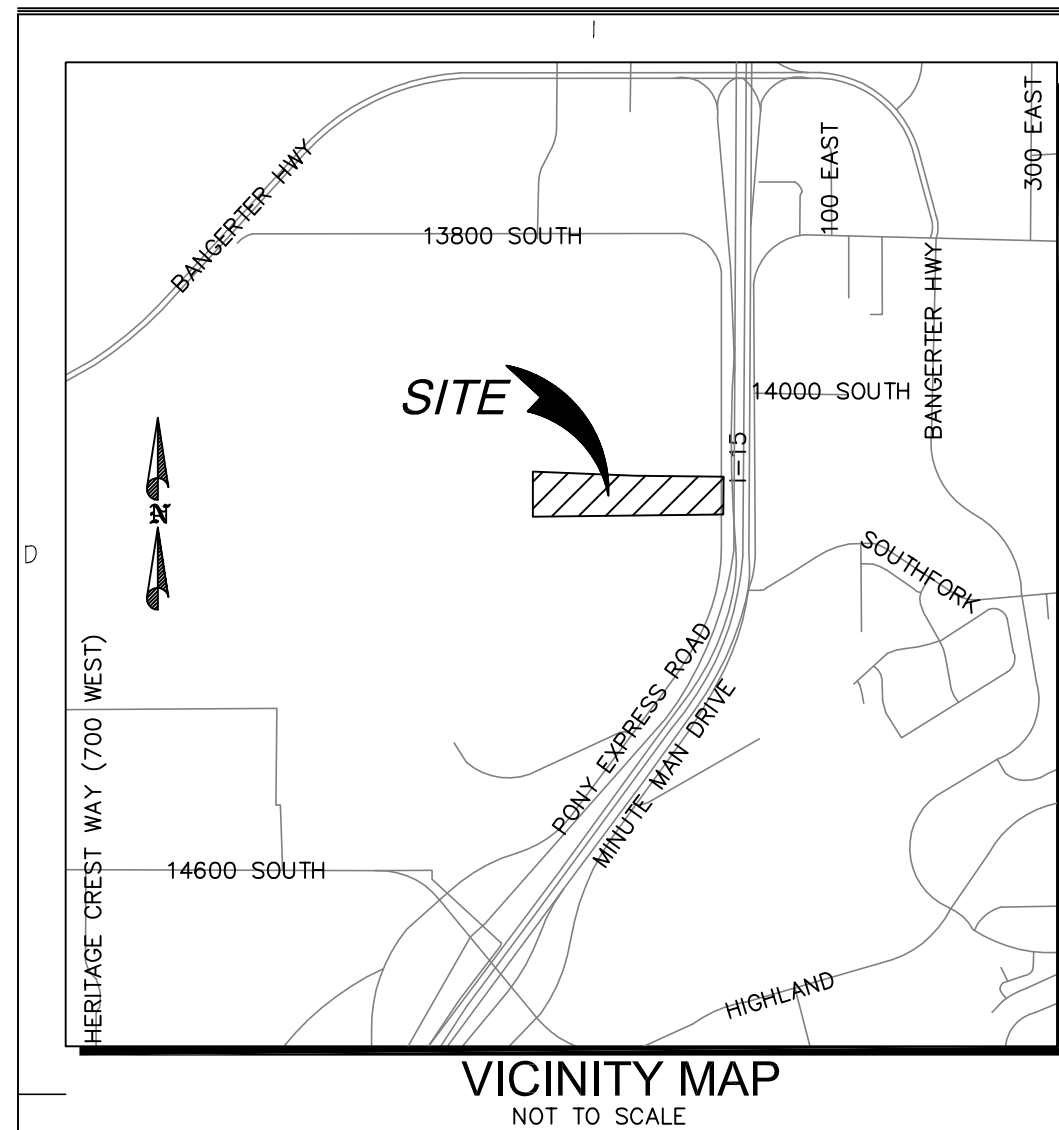
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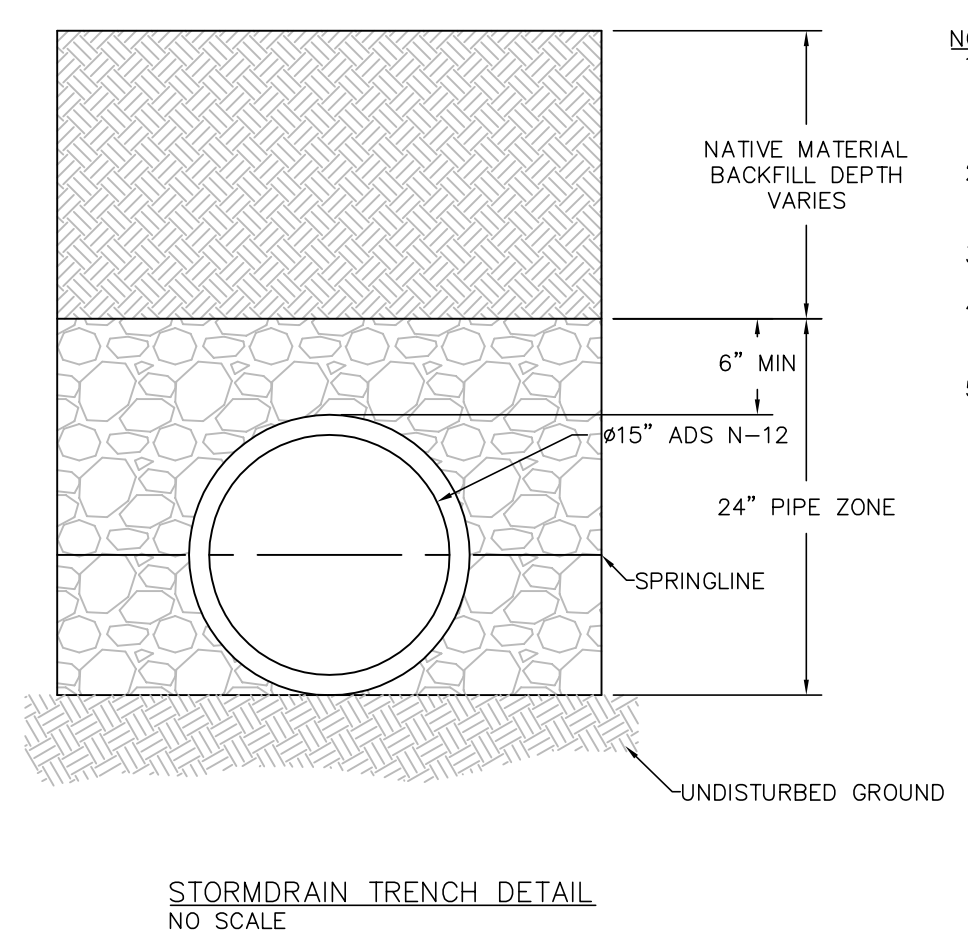




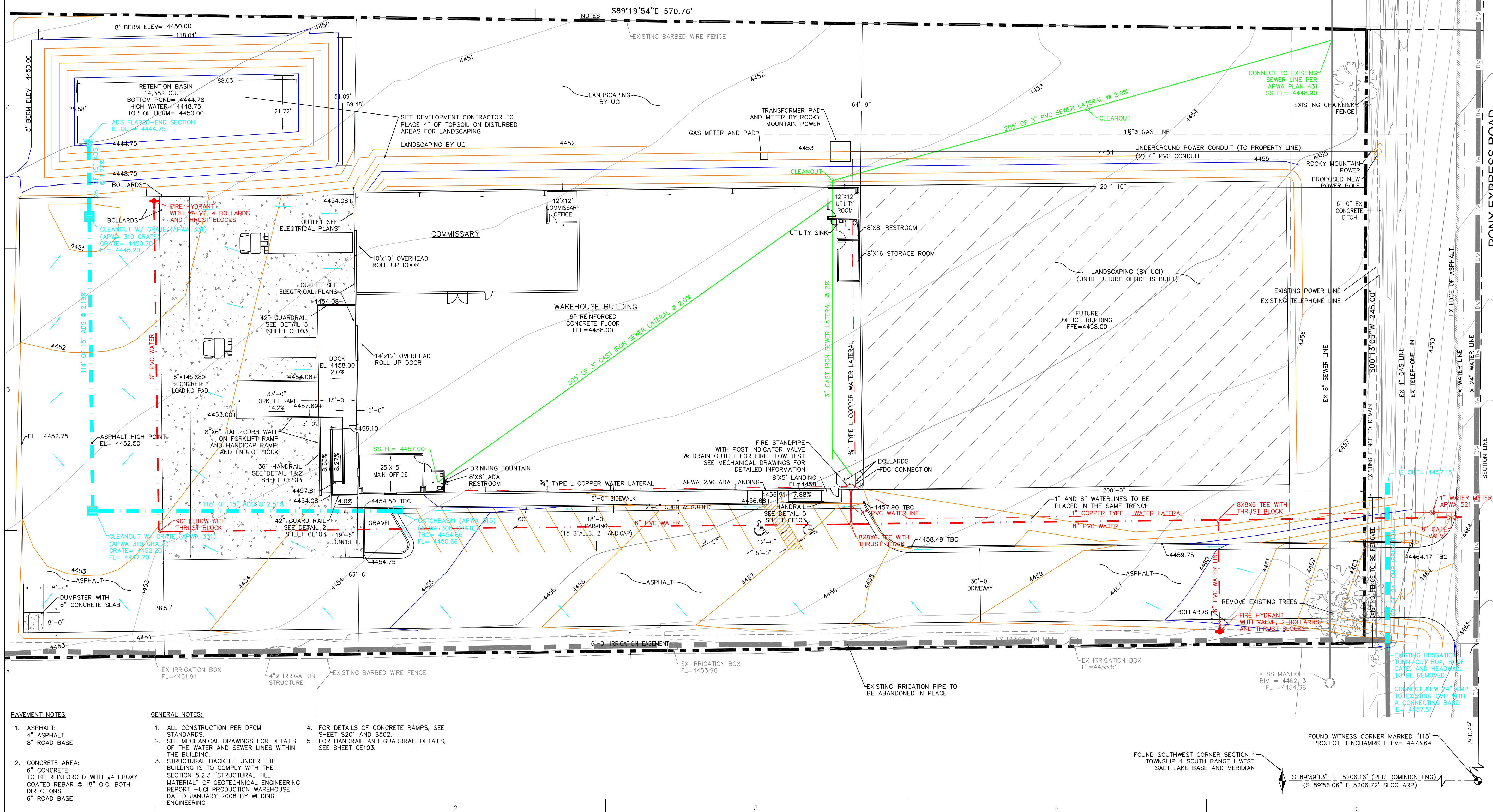
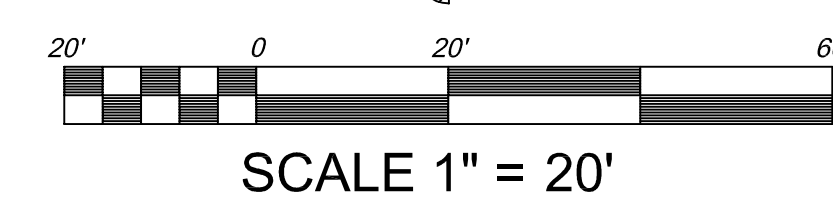




INFORMATION TABLE			
ITEM	SPEC	TYPE	
WATER METER	APWA 521		1" WATER METER
FIRE HYDRANT	APWA 511		
WATER LATERAL	PVC	TYPE L	3/4" COPPER
THRUST BLOCKS	APWA 561		
TRENCH	APWA 381-382		
CATCH BASINS	APWA 315		
GRATE	APWA 308		
CLEANOUTS	APWA 331		
GRATE	APWA 310		
STORMDRAIN PIPE	HDPE	ADS N-12	
TRENCH	ASTM D2321		SEE DETAIL-THIS SHEET
CLEANOUT	APWA 310		
CONNECTION	APWA 431		CONTRACTOR TO INSTALL WYE
SEWER PIPE	CAST IRON	CAST IRON	UNDER PERMANENT STRUCTURE
SEWER PIPE	PVC	SDR 36	LATERAL EXTERIOR OF STRUCTURE
TRENCH	APWA 381-382		
CURB & GUTTER	APWA 205	TYPE A	HIGH BACK CURB
RAMP/ LANDING	APWA 236		ADA REQUIREMENTS
SIDEWALK	APWA 231		



- NOTES:
1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
  2. PIPE ZONE BACKFILL TO BE CLASS II CLEAN, COURSE GRAINED MATERIALS, GRAVEL/ SAND MIXTURES, 1" MAX, WELL GRADED, EXCEPT NOT MORE THAN 15% -200 SIEVE MATERIAL.
  3. BACKFILL MATERIAL TO BE PLACED IN 8" LIFTS TO 95% OF THE MODIFIED PROCTOR.
  4. INITIAL BACKFILL SHALL BE CLASS I IN THE PIPE ZONE NOT EXTENDING LESS THAN 6" ABOVE CROWN OF PIPE. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321.
  5. MINIMUM COVER IS 12" MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.



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03/04/08 UPDATED HAND/GUARD RAIL DETAIL

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# SITE, GRADING AND DRAINAGE PLAN

**CE101**





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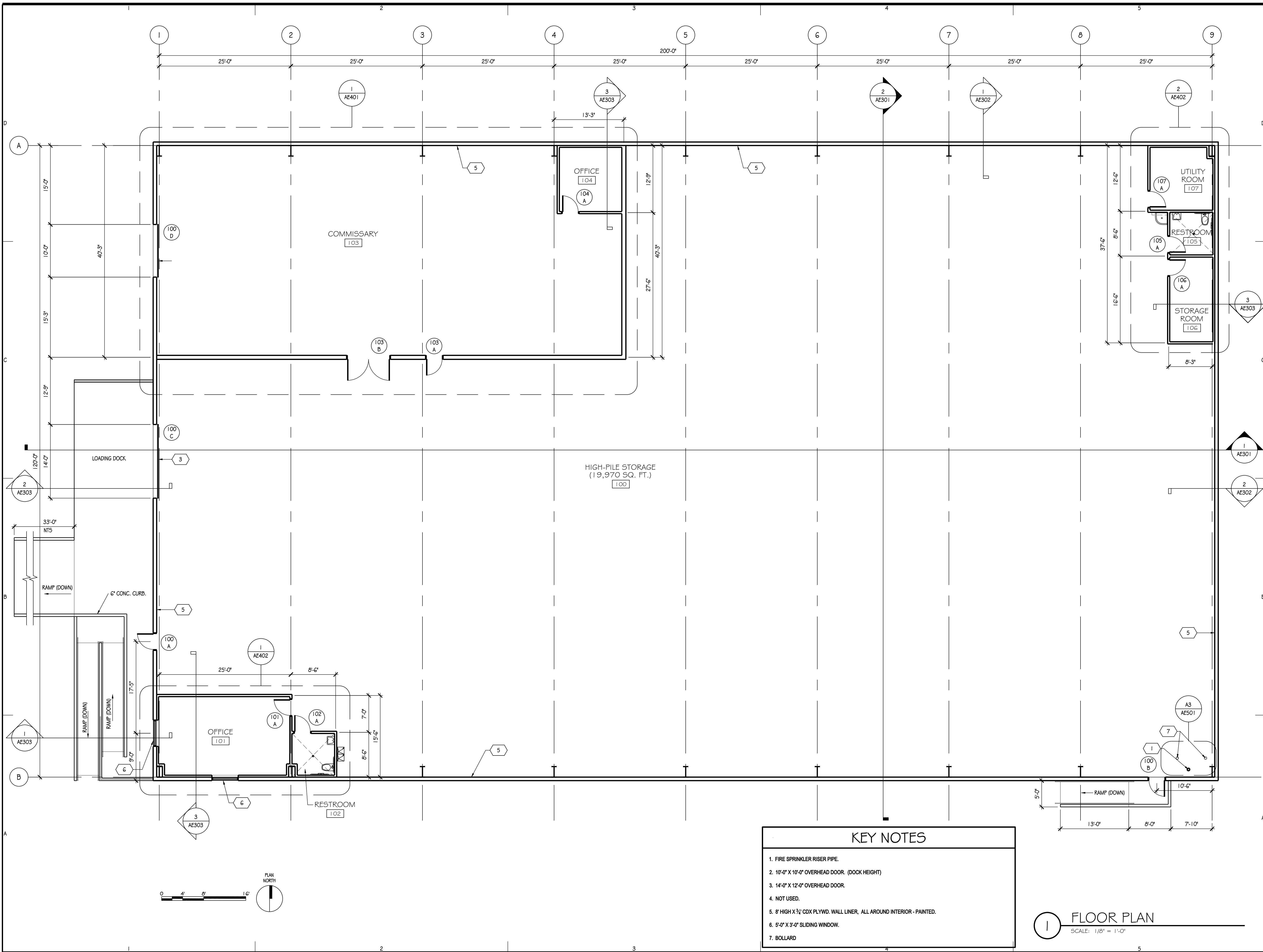
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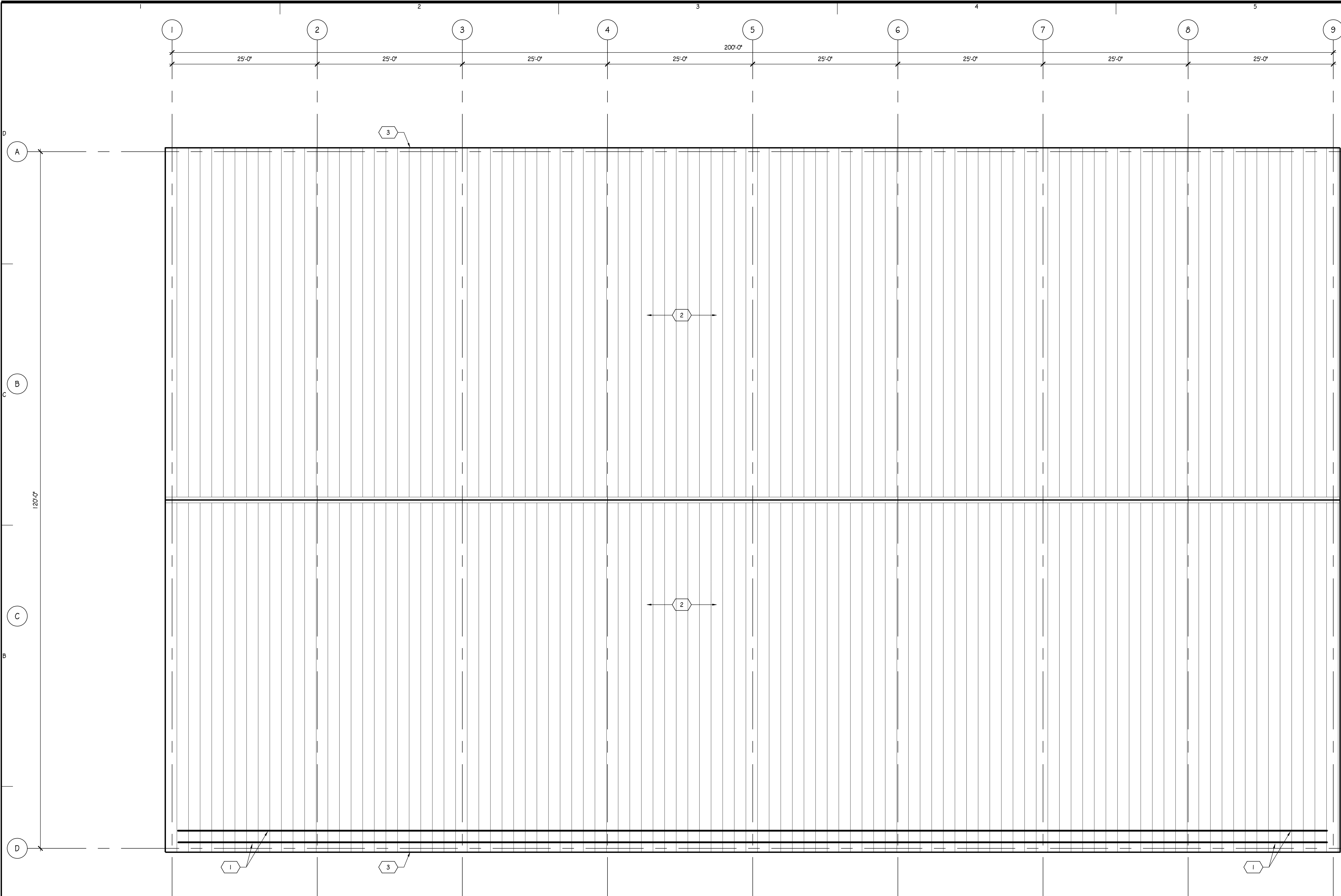
**FLOOR PLAN**

**AE101**

SHEET OF







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CD
DD
PROJECT NO: 000-000
CAD DWG FILE: ae102.dwg
DRAWN BY:
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KEY NOTES
1. SNOW GUARDS.
2. METAL ROOF BY BUILDING MANF.
3. GUTTER AND DOWNSPOUTS

**ROOF PLAN**  
SCALE: 1/8" = 1'-0"

**ROOF PLAN**

**AE102**

SHEET OF





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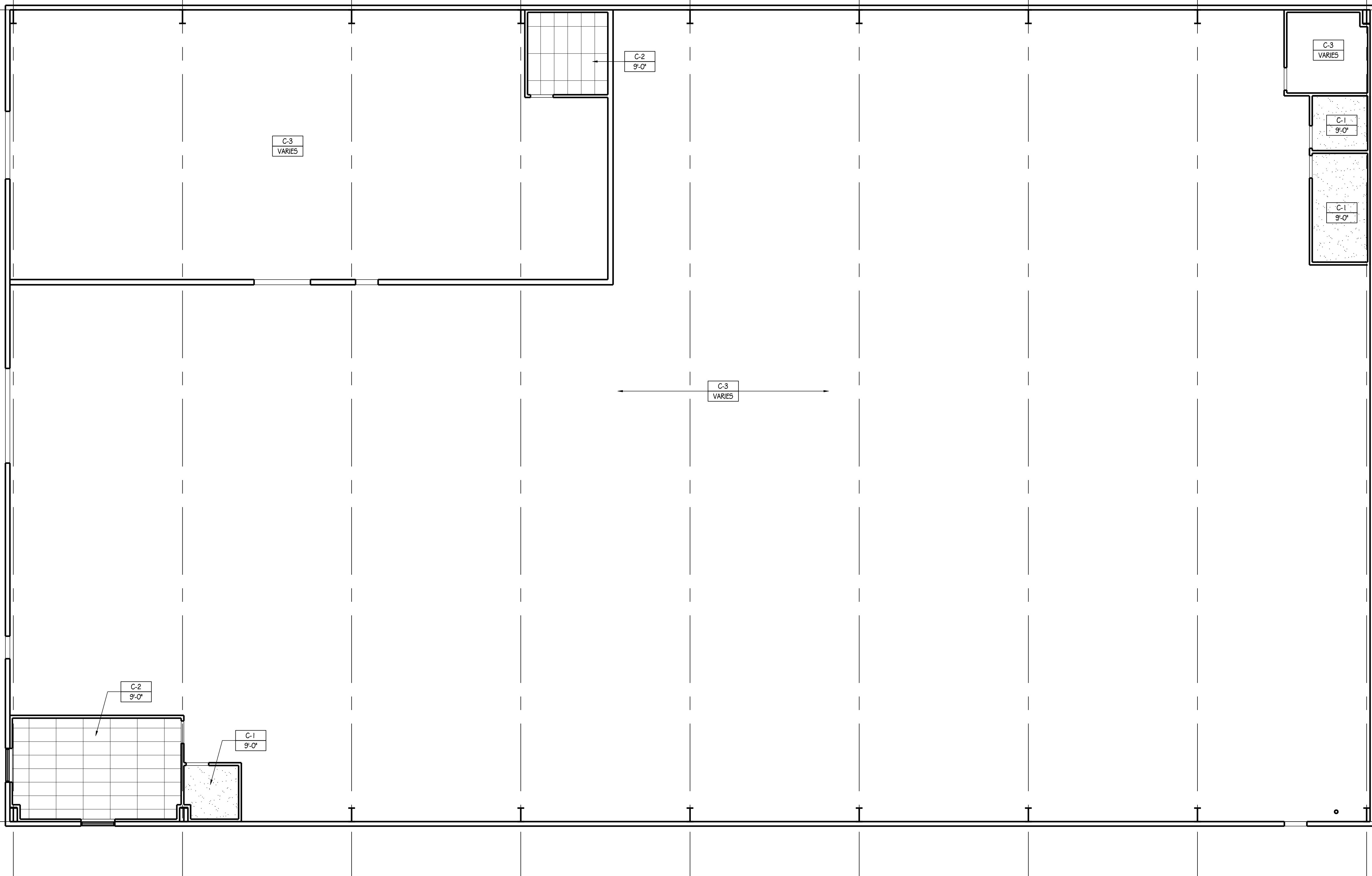
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REFLECTED  
CEILING PLAN

**AE111**

SHEET OF



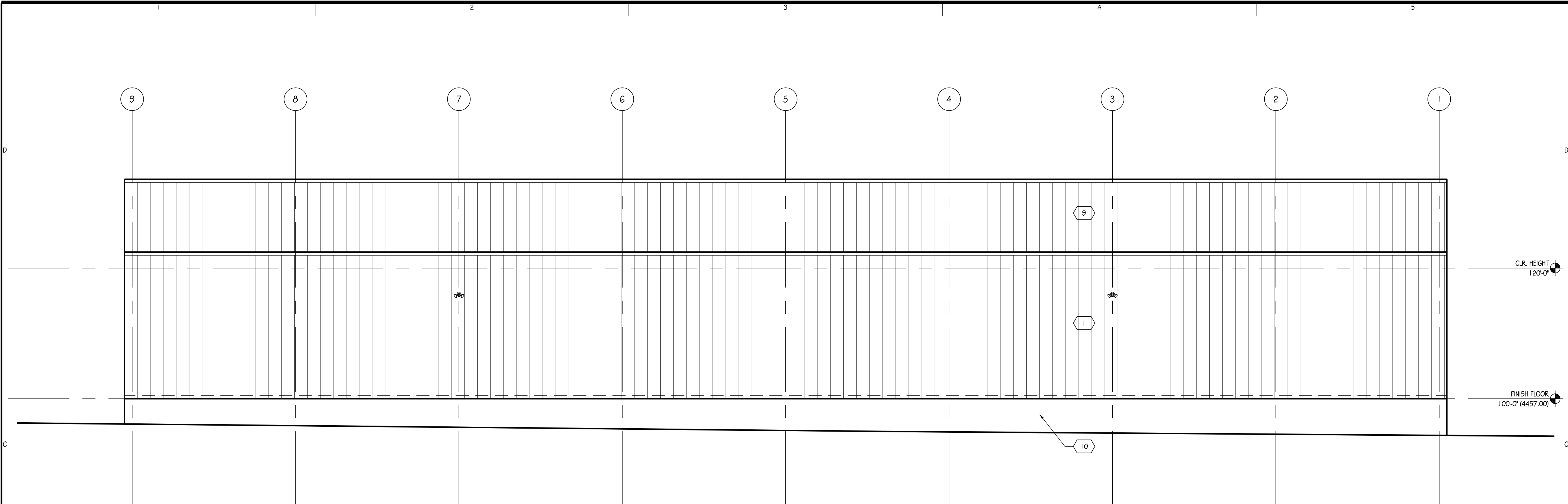
× CEILING FINISH SCHEDULE

C-1	PAINTED GYP. BOARD CEILING
C-2	SUSPENDED CLG. SYSTEM.
C-3	OPEN TO STRUCTURE ABOVE.

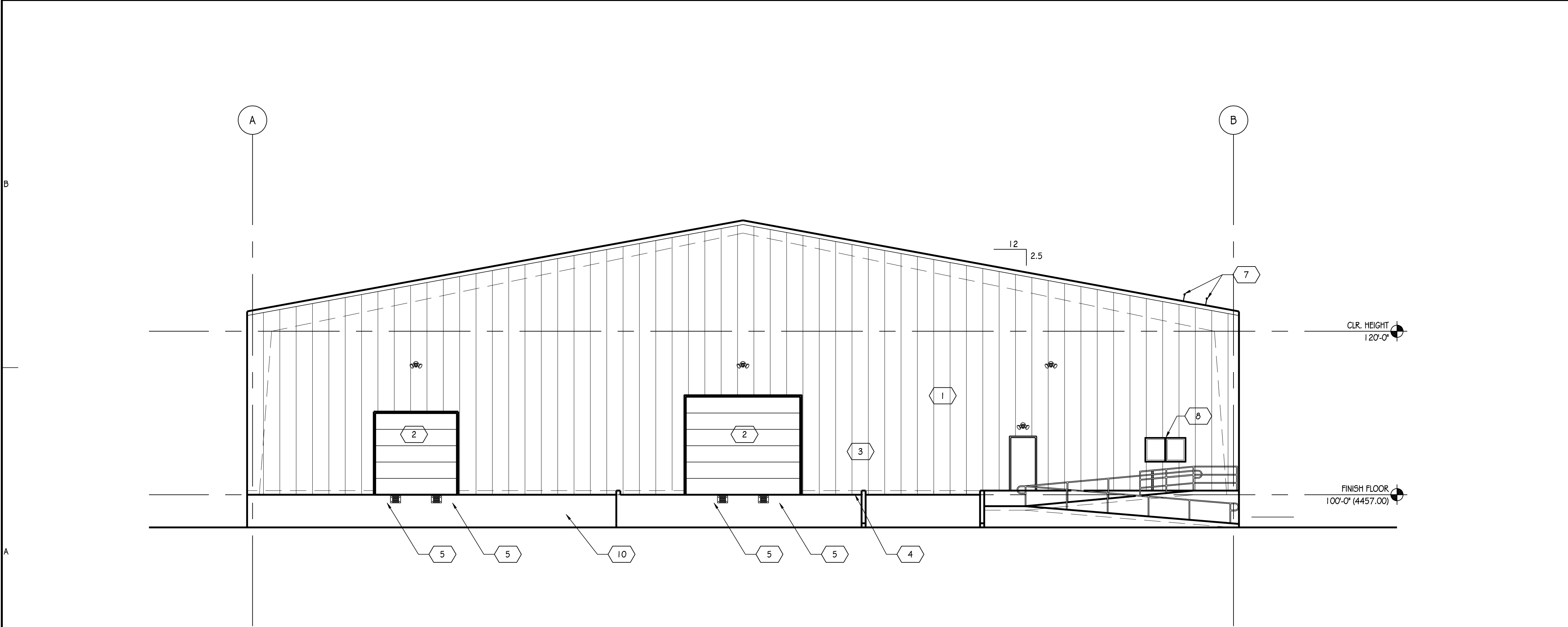
CEILING PLAN

SCALE: 1/8" = 1'-0"





1 NORTH ELEVATION  
SCALE: 1/8" = 1'-0"



2 WEST ELEVATION  
SCALE: 1/8" = 1'-0"

KEY NOTES

1. SIDING - BY BUILDING MANUFACTURER.
2. OVERHEAD DOOR.
3. PERSONNEL DOOR.
4. LOADING DOCK.
5. DOCK BUMPERS.
6. GUARDRAIL
7. SNOW GUARDS
8. WINDOW
9. ROOFING - BY BUILDING MANUFACTURER.
10. CONCRETE FOUNDATION WALL.



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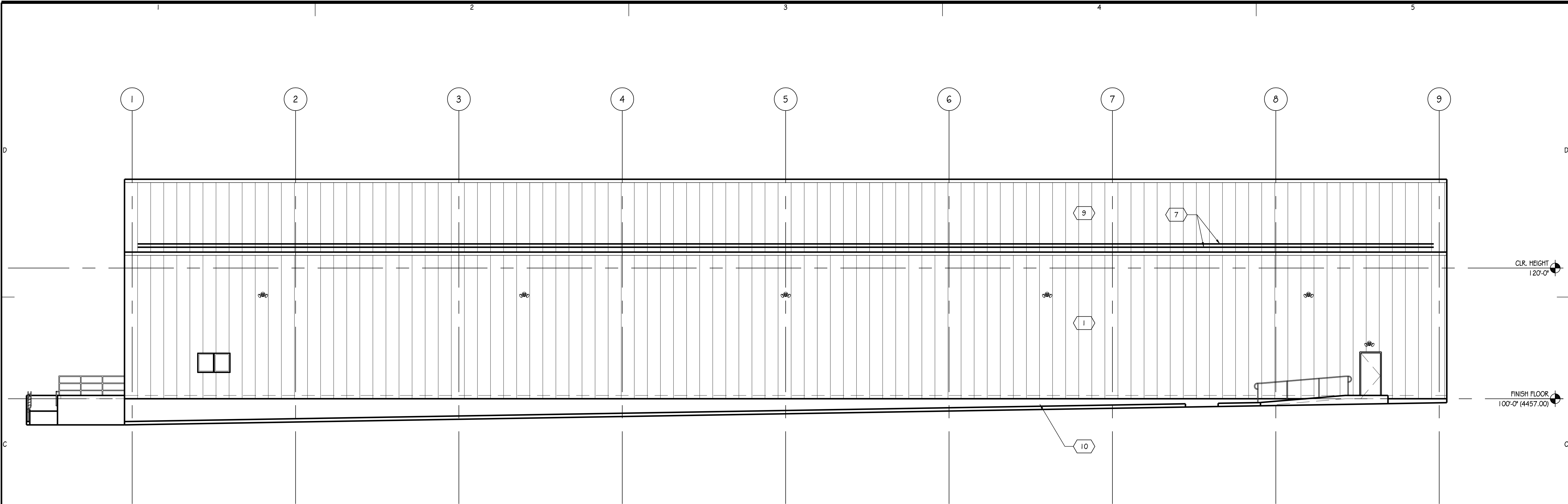
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CAD DWG FILE: ae201.dwg
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EXTERIOR  
ELEVATIONS

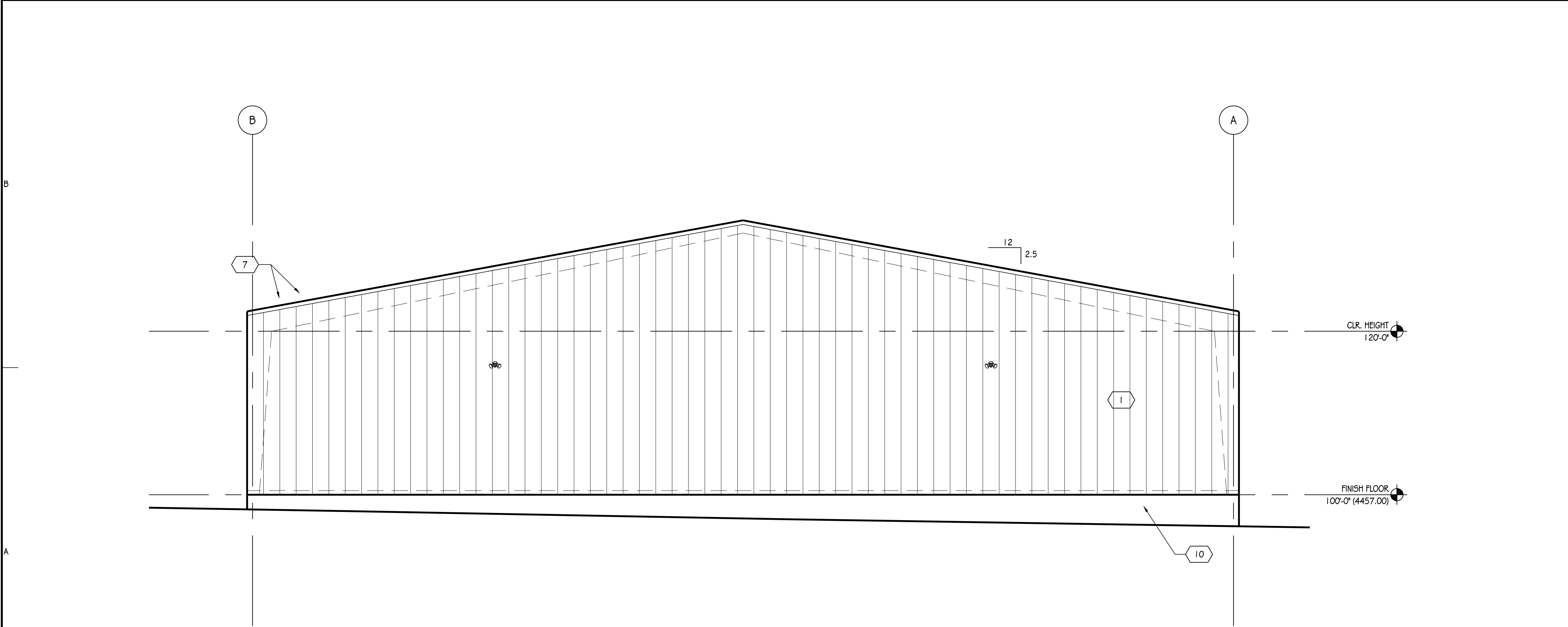
AE201

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3 SOUTH ELEVATION  
SCALE: 1/8" = 1'-0"



4 EAST ELEVATION  
SCALE: 1/8" = 1'-0"



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**KEY NOTES**

1. SIDING - BY BUILDING MANUFACTURER.
2. OVERHEAD DOOR.
3. PERSONNEL DOOR.
4. LOADING DOCK.
5. DOCK BUMPERS.
6. GUARDRAIL
7. SNOW GUARDS
8. WINDOW
9. ROOFING - BY BUILDING MANUFACTURER.
10. CONCRETE FOUNDATION WALL.

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CAD DWG FILE: ae202.dwg  
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CHECKED BY:

EXTERIOR  
ELEVATIONS

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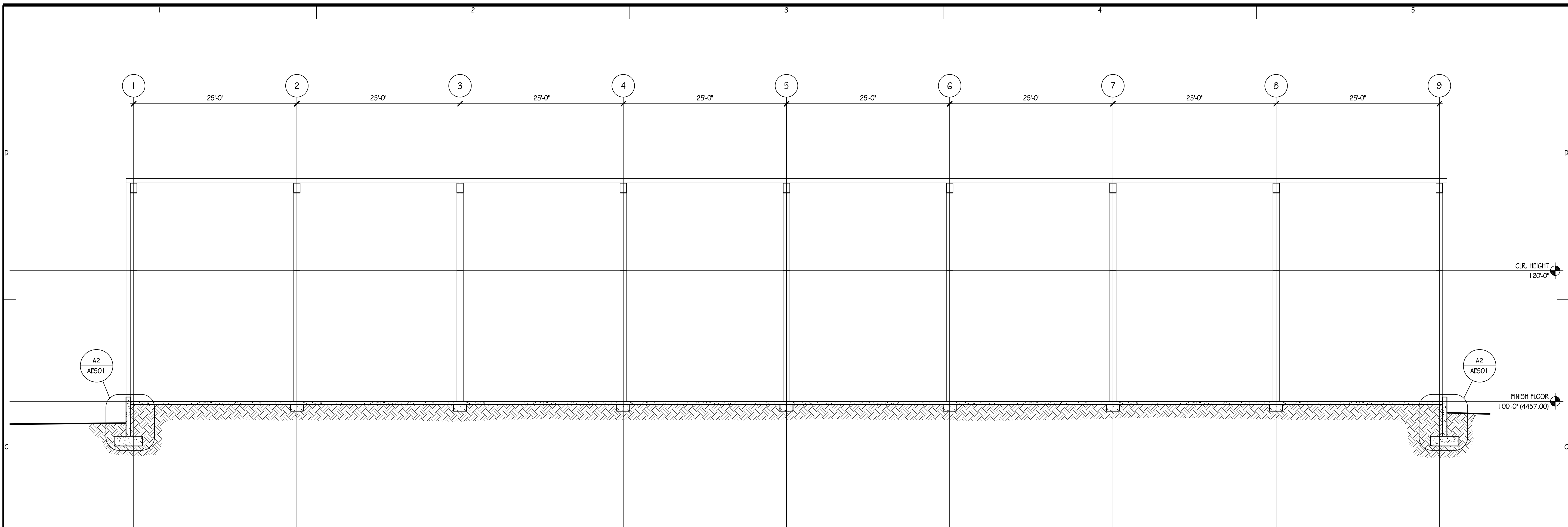
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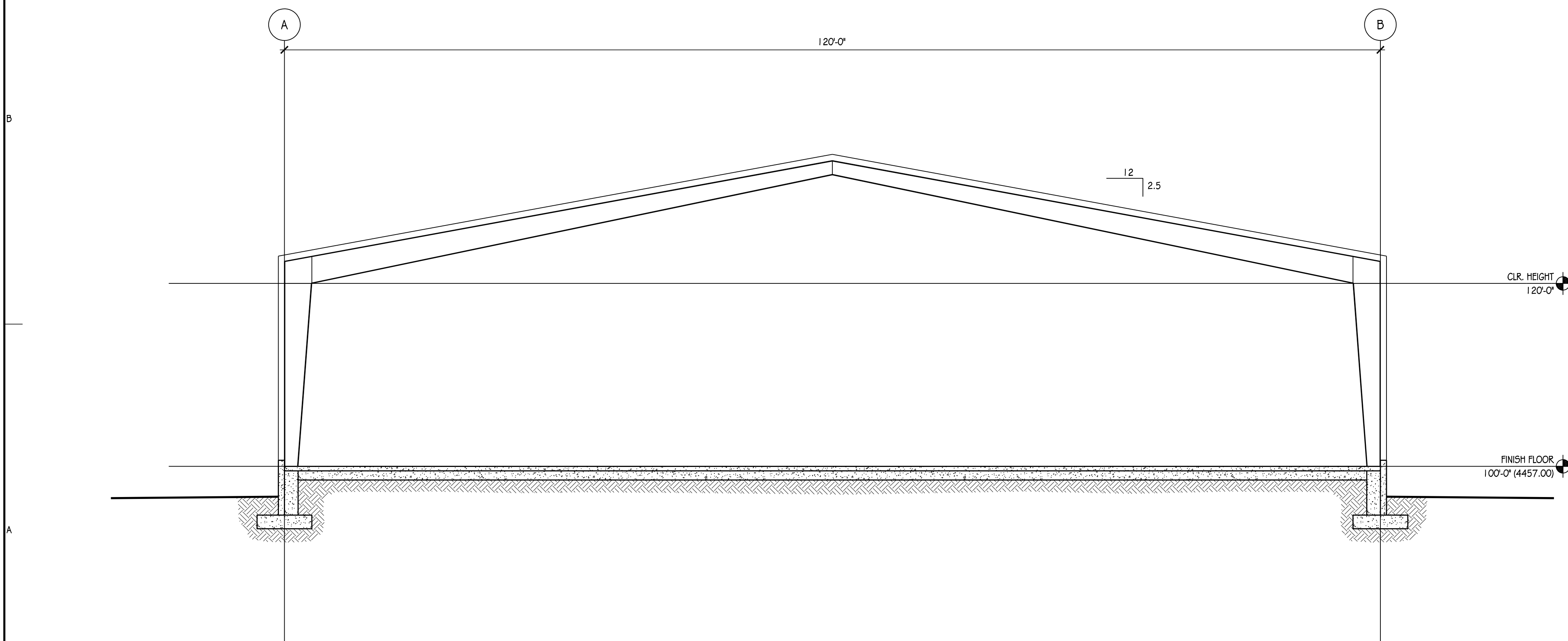
**BUILDING  
SECTIONS**

**AE301**

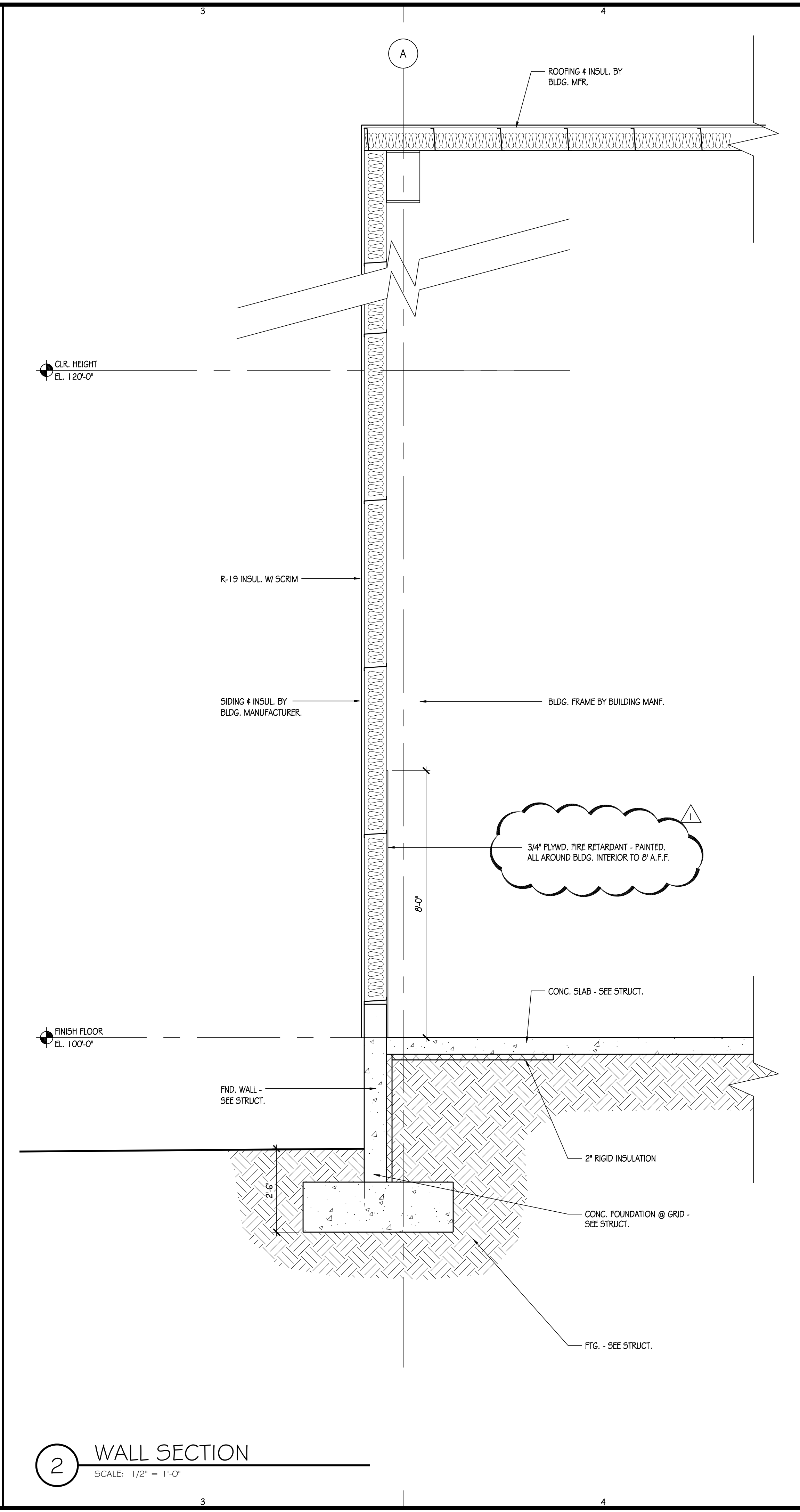
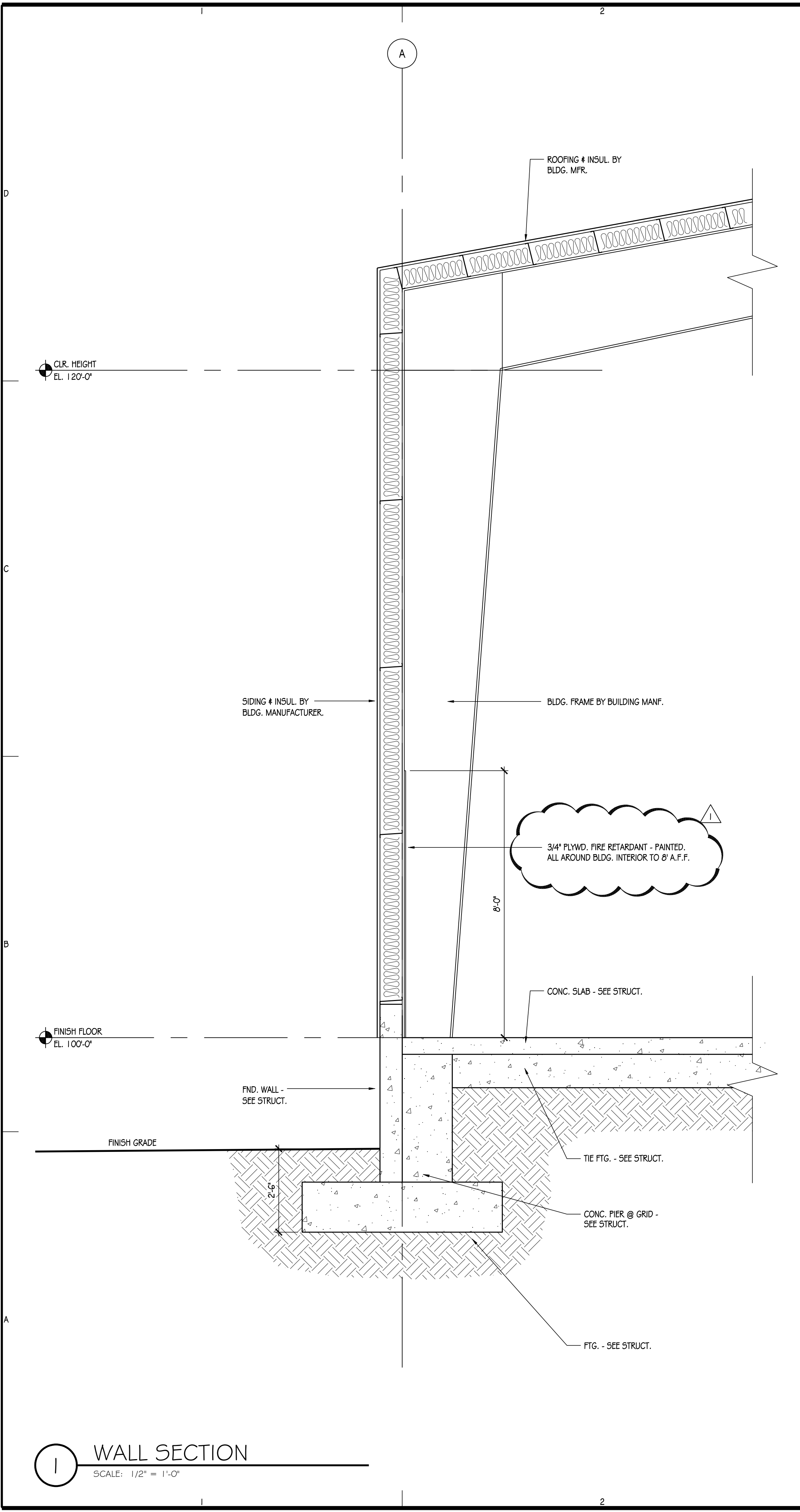
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**1 BUILDING SECTION**  
SCALE: 1/8" = 1'-0"



**2 BUILDING SECTION**  
SCALE: 1/8" = 1'-0"



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APRIL 1, 2008
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PROJECT NO: B08-002
CAD DWG FILE: ae302.dwg
DRAWN BY: JLG
CHECKED BY: CRSA

WALL SECTIONS

**AE302**

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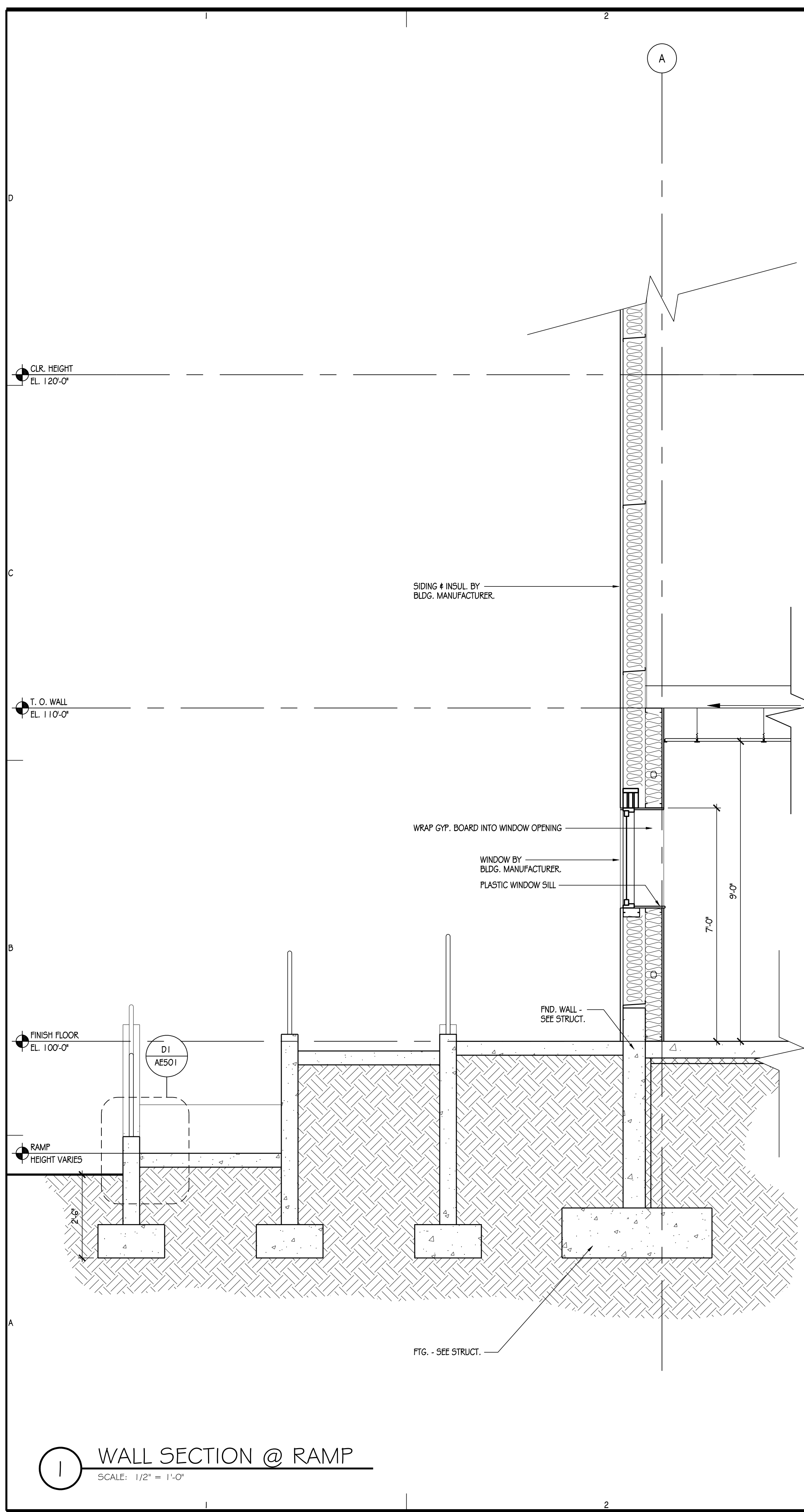
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PROJECT NO: 000-000
CAD DWG FILE: ae303.dwg
DRAWN BY:
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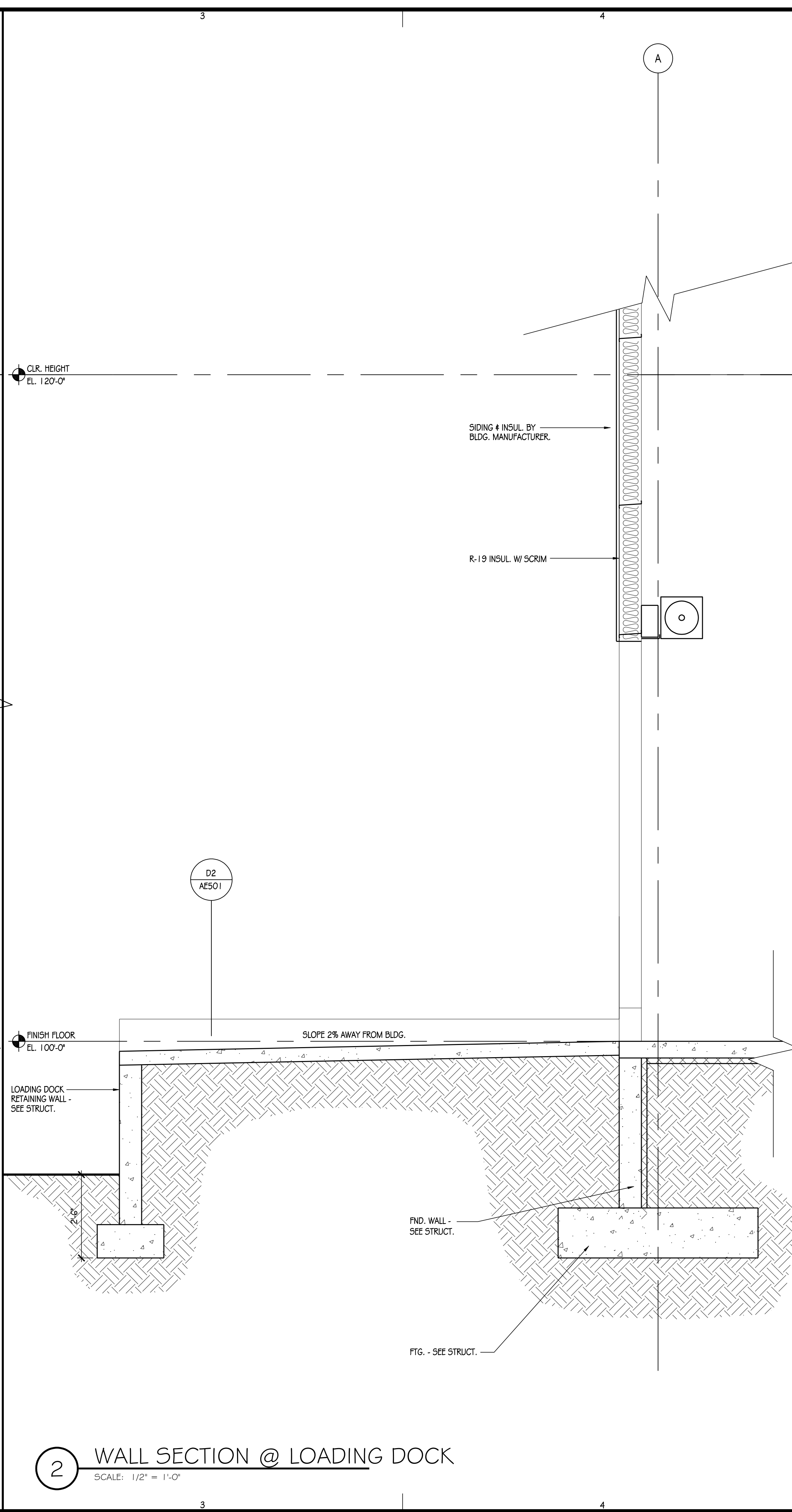
WALL SECTIONS

**AE303**

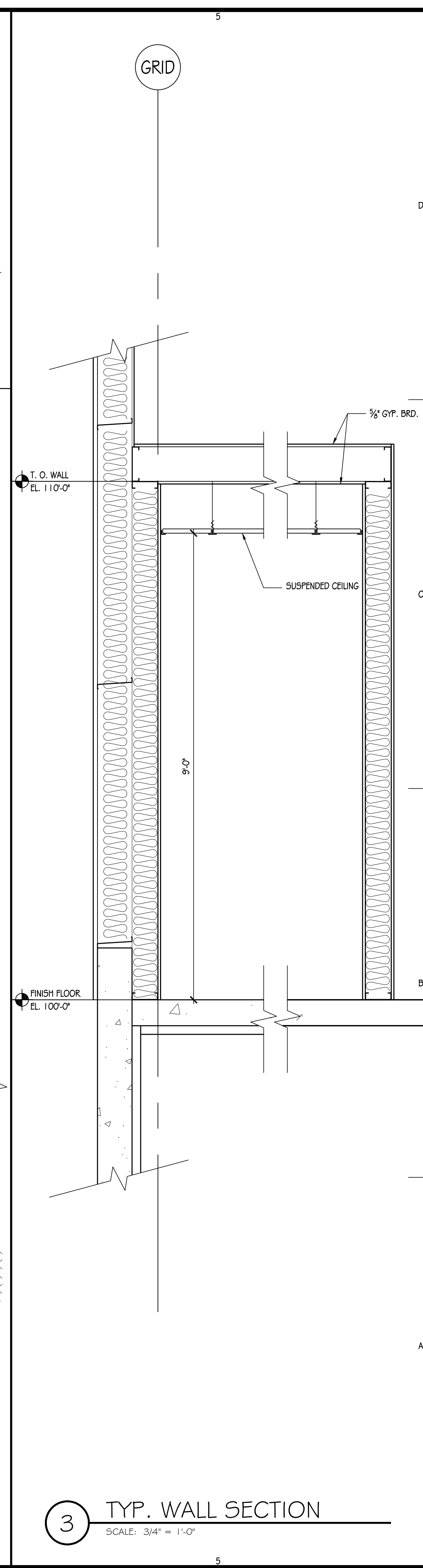
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1 WALL SECTION @ RAMP  
SCALE: 1/2" = 1'-0"



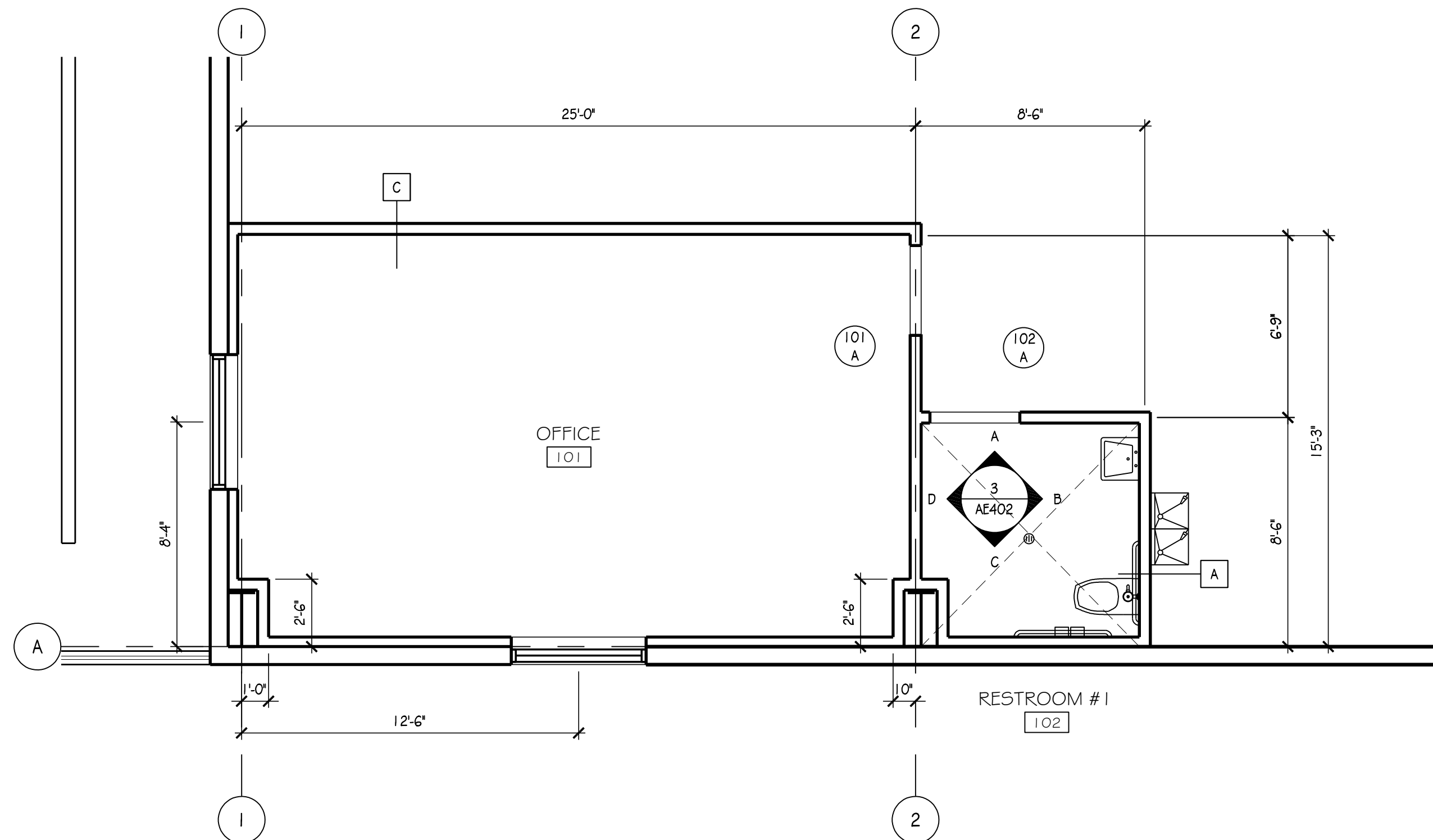
2 WALL SECTION @ LOADING DOCK  
SCALE: 1/2" = 1'-0"



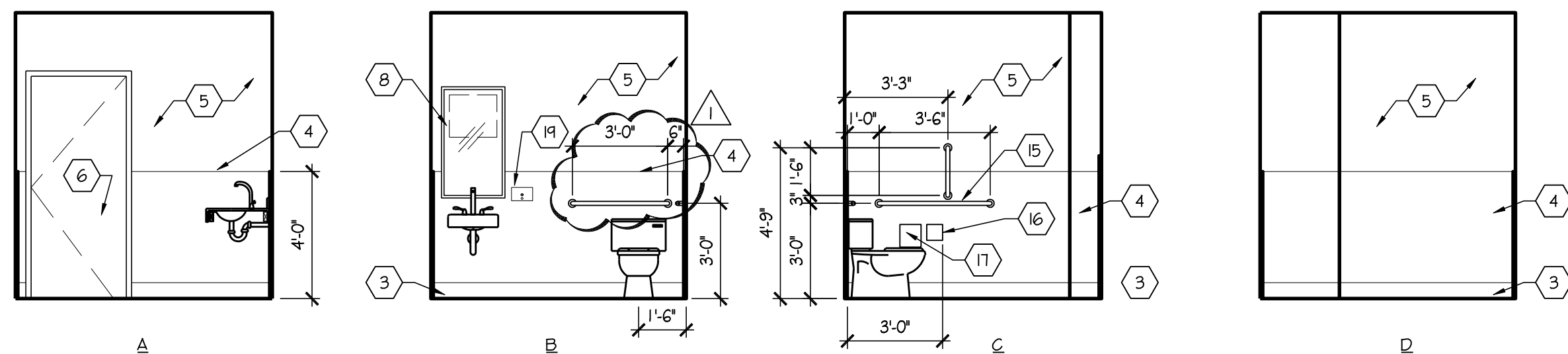
3 TYP. WALL SECTION  
SCALE: 3/4" = 1'-0"



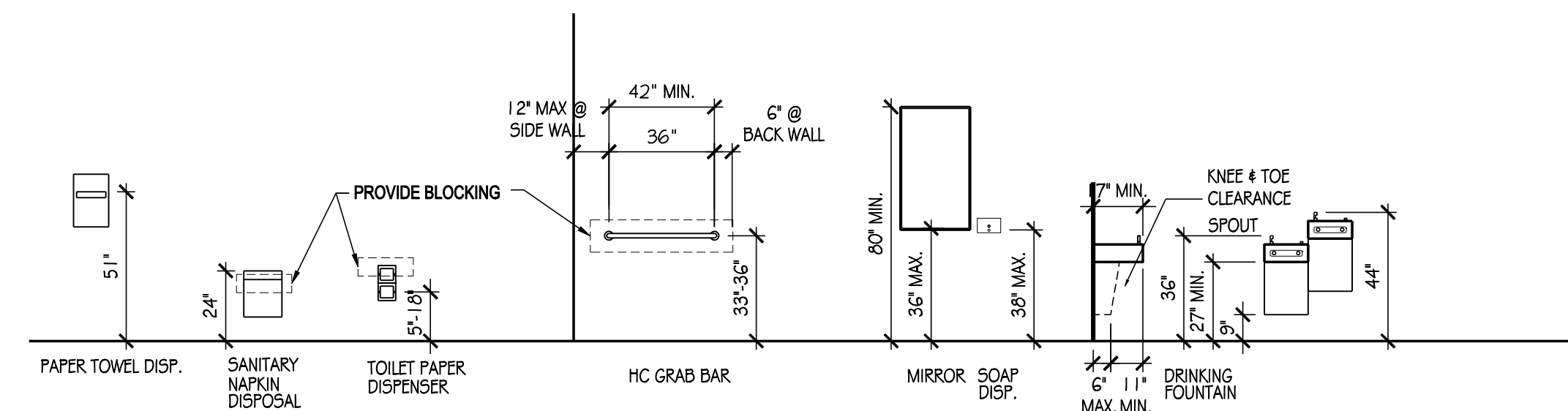




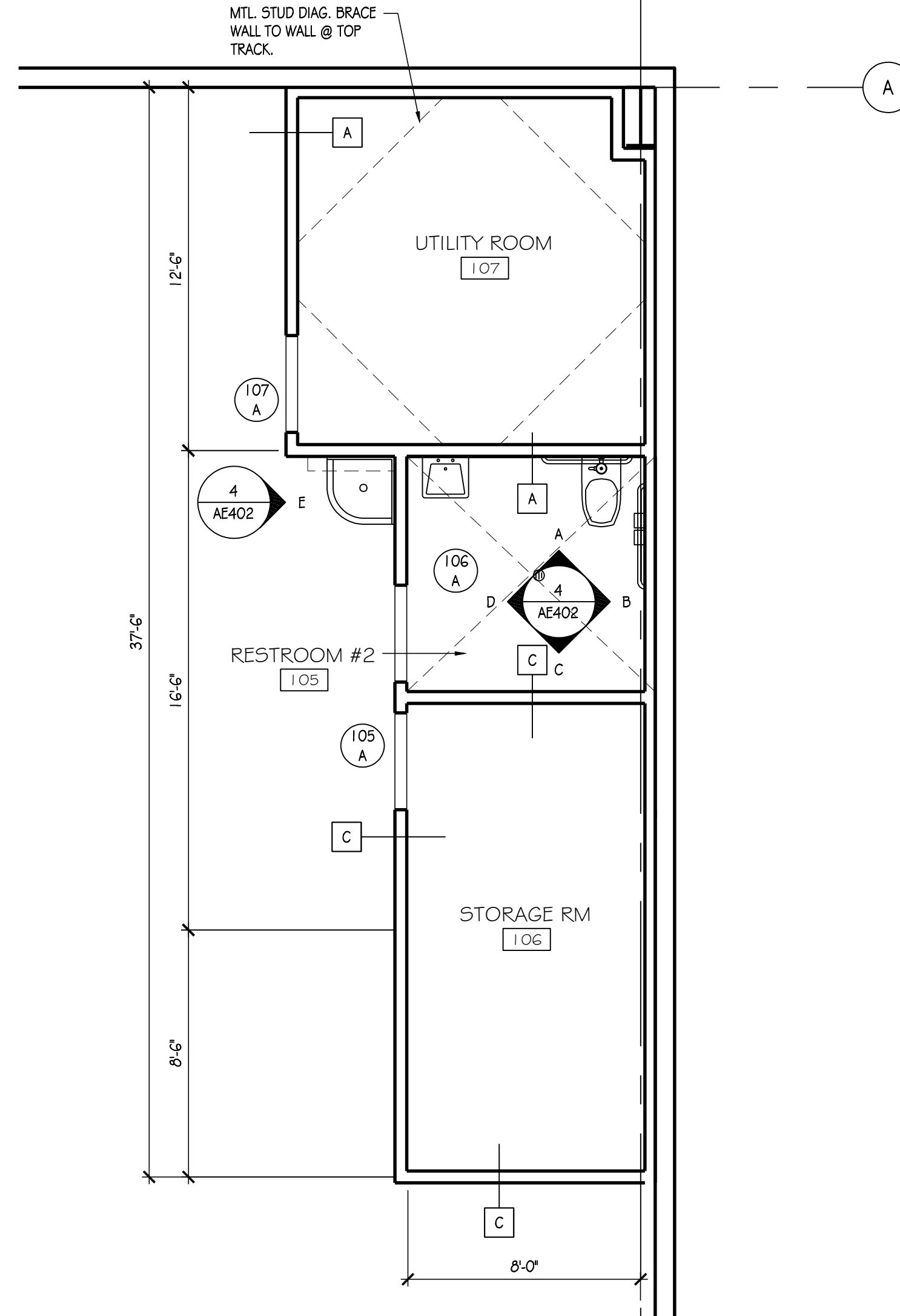
1 PARTIAL ENLARGED PLAN - OFFICE  
SCALE: 1/4" = 1'-0"



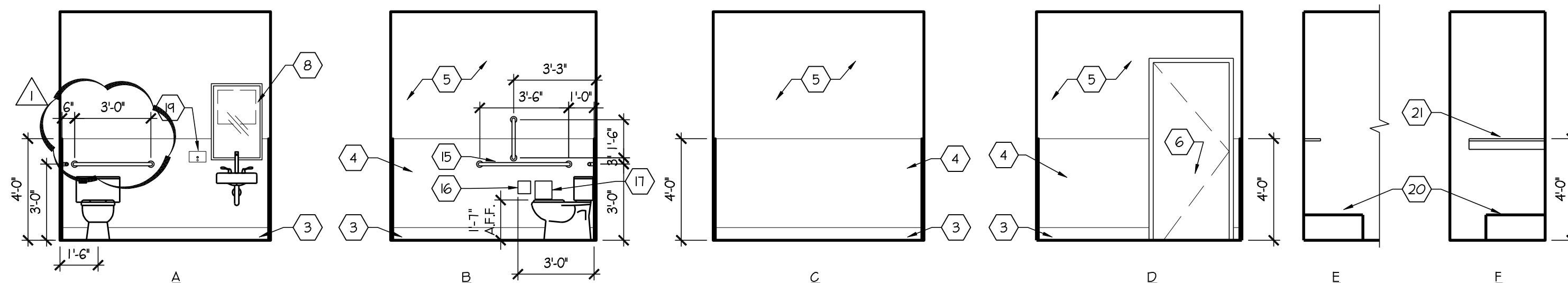
3 INTERIOR ELEVATION - RESTROOM #1  
SCALE: 1/4" = 1'-0"



5 FIXTURE MOUNTING HEIGHT  
SCALE: 1/4" = 1'-0"



2 PARTIAL ENLARGED PLAN  
SCALE: 1/4" = 1'-0"



4 INTERIOR ELEVATION - RESTROOM #2  
SCALE: 1/4" = 1'-0"

## REFERENCE NOTES

1. DEPRESS SLAB 2" FOR SETTING BED.
2. FLOOR DRAIN. SEE PLUMBING.
3. 4" RUBBER COVE BASE.
4. FRP WALL COVERING.
5. PAINTED GYP. BOARD.
6. DOOR.
7. 2'-0" X 5'-6" MIRROR ON PLYWOOD SPACER ABOVE WAINSCOT.
8. 2'-0" X 3'-6" MIRROR ON PLYWOOD SPACER ABOVE WAINSCOT.
9. TOILET.
10. URINAL.
11. SINK.
12. COUNTER TOP.
13. SURFACE MOUNTED FLUORESCENT FIXTURE. SEE ELECTRICAL.
14. TOILET PARTITION.
15. GRAB BAR.
16. TOILET PAPER DISPENSER.
17. SANITARY NAPKIN RECEPTACLE.
18. PAPER TOWEL DISPENSER.
19. SOAP DISPENSER.
20. MOP SINK.
21. 36" X 8" SHELF @ 48" AFF.

## GENERAL NOTES

1. PROVIDE BLOCKING FOR ALL RESTROOM ACCESSORIES AND OTHER ITEMS TO BE ATTACHED TO WALLS IN OTHER LOCATIONS. COORDINATE WITH WALL FRAMING PLAN.

## DOOR SCHEDULE

DOOR NUMBER	SINGLE	DOUBLE	DOOR TYPE	DOOR SIZE	HARDWARE GROUP	FRAME TYPE	COMMENTS
100A	●		T-1	5-1	H-1	F-1	
100B	●		T-1	5-1	H-1	F-1	
100C	●		T-3	5-2	H-7	F-2	
100D	●		T-3	5-3	H-7	F-2	
101A	●		T-2	5-1	H-2	F-1	
102A	●		T-2	5-1	H-4	F-1	
103A	●		T-2	5-5	H-2	F-1	
103B	●		T-2	5-4	H-6	F-1	
104A	●		T-2	5-1	H-2	F-1	
105A	●		T-2	5-1	H-4	F-1	
106A	●		T-2	5-1	H-3	F-1	
107A	●		T-2	5-1	H-3	F-1	

**DOOR TYPES**  
T-1 = HOLLOW METAL INSULATED FLUSH  
T-2 = HOLLOW METAL NON-INSULATED FLUSH  
T-3 = INSULATED OVERHEAD ROLL-UP  
**DOOR SIZES**  
S-1 = 3'-0" X 7'-0" X 1-3/4"  
S-2 = 1'-4" X 12'-0"  
S-3 = 10'-0" X 10'-0"  
S-4 = 8'-0" X 10'-0"  
S-5 = 3'-0" X 7'-0"  
**HARDWARE GROUPS**  
H-1 ENTRY DOOR - SEE SPECIFICATIONS  
H-2 OFFICE DOOR - SEE SPECIFICATIONS  
H-3 STORAGE & UTILITY - SEE SPECIFICATIONS  
H-4 RESTROOM - SEE SPECIFICATIONS  
H-5 NOT USED  
H-6 DOUBLE CARGO DOOR - SEE SPECIFICATIONS  
H-7 OVERHEAD ROLL-UP DOOR - SEE SPECIFICATIONS  
**FRAME TYPES**  
F-1 = HOLLOW METAL  
F-2 = PER OVERHEAD DOOR MFR.  
**COMMENTS**



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APRIL 1, 2008

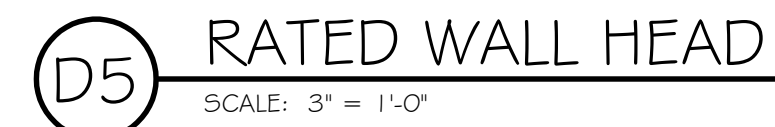
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PROJECT NO: B08-002  
CAD DWG FILE: ae402.dwg  
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ENLARGED FLOOR  
PLANS

**AE402**

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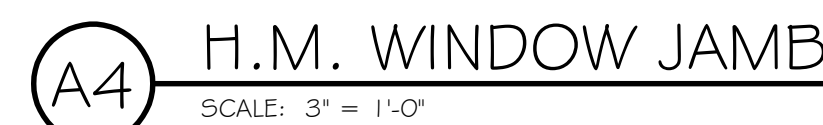
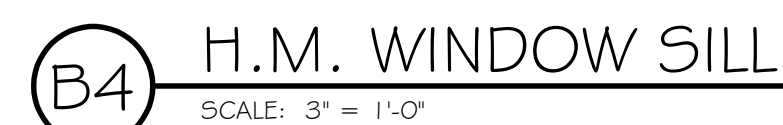
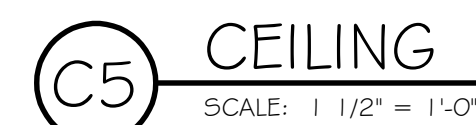
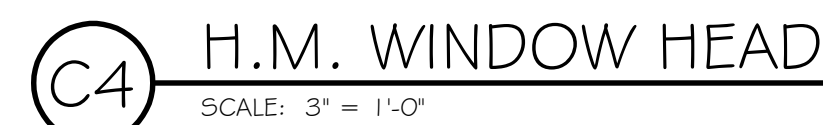
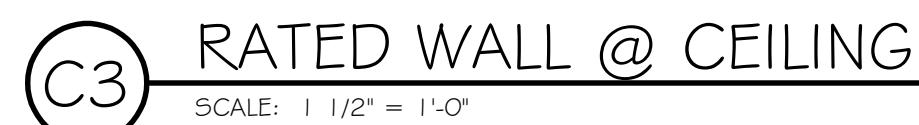
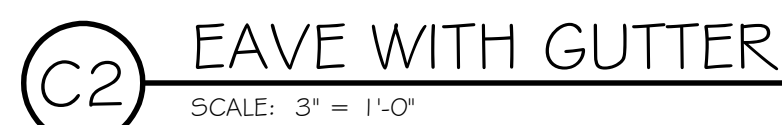


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1 APRIL 1, 2008

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## DETAILS

# AE501

SHEET OF



# GENERAL STRUCTURAL NOTES

## GENERAL

- The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.
- Typical details and sections shall apply where specific details are not shown.
- The contractor shall verify all site conditions and dimensions. If actual conditions differ from those shown in the contract drawings, the contractor shall immediately notify the architect/engineer before proceeding with the fabrication or construction of any effected elements.
- Changes to these contract drawings may be made only by an authorized representative of Dunn Associates, Inc. Dunn Associates, Inc. shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative of Dunn Associates, Inc.
- Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner.
- The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions, or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.
- The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.
- The contractor shall be responsible for means, methods, techniques, sequences, and procedures in order to comply with the contract drawings and specifications. The contractor shall provide adequate shoring and bracing as required for the chosen method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls shall not be considered self-supporting and shall be braced until the floor/roof system is completed.
- Site observations by a field representative of Dunn Associates, Inc. shall not be construed as approval of construction, the procedures, nor special inspection.
- Detailing and shop drawing production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultant's drawings. Most dimensions and most non-structural elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. See the Architectural Drawings for dimensions, doors, windows, non-bearing interior and exterior walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfers, kerfs, etc.
- Review of shop drawing submittals by Dunn Associates, Inc. is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the responsibility of completing the project according to the contract documents.
- Shop drawings made from reproductions of the structural drawings will be rejected unless the contractor signs a release agreement prior to the shop drawings being reviewed. The contractor may also obtain electronic files of the plan sheets after signing a release agreement. Electronic files of the detail sheets and schedule sheets will not be made available.
- All work shall be done in accordance with OSHA requirements. Potential conflicts between these documents and OSHA requirements shall be brought to the attention of the structural engineer before proceeding with the work.
- This set of structural drawings is not to be used for construction. They are based on estimated, not actual, column and wall loads. These drawings are solely intended for use as a coordination set. This set will be updated when actual loads are received from the prefabricated metal building designer/supplier/manufacture.

## BASIS OF DESIGN

- |  |                                  |
|--|----------------------------------|
| 1. Governing Building Code                             | International Building Code 2006 |
| 2. Roof Snow Load Per Prefab Building Designer         |                                  |
| 2.1. Ground Snow Load                                  | $P_g = 43$ psf                   |
| 2.2. Flat Roof Snow Load                               | $P_f = 30$ psf                   |
| 2.3. Snow Exposure Factor                              | $C_e = 1.0$                      |
| 2.4. Snow Load Importance Factor                       | $I_s = 1.0$                      |
| 2.5. Thermal Factor                                    | $C_t = 1.0$                      |
| 3. Wind Load Per Prefab Building Designer              |                                  |
| 3.1. Basic Wind Speed (3 Second Gust)                  | 90 mph                           |
| 3.2. Wind Importance Factor                            | 1.00                             |
| 3.3. Wind Exposure                                     | C                                |
| 3.4. Internal Pressure Coefficient                     | $\pm 0.18$                       |
| 4. Earthquake Design Data Per Prefab Building Designer |                                  |
| 4.1. Occupancy Category                                | I                                |
| 4.2. Seismic Importance Factor                         | 1.0                              |
| 4.3. Mapped Spectral Response Accelerations            |                                  |
| 4.3.1. Short Period Acceleration                       | $S_s = 1.398$                    |
| 4.3.2. 1-Second Acceleration                           | $S_1 = 0.593$                    |
| 4.4. Site Class (Soil Profile)                         | D                                |
| 4.5. Basic Seismic Force Resisting System              |                                  |
| 4.5.1. Per Prefabricated Metal Building Manufacturer   |                                  |
| 4.6. Seismic Design Category                           | D                                |

## FOUNDATION

- |  |                                |
|--|--------------------------------|
| 1. Soils Report by:  | Wilding Engineering            |
| Dated:   | January 2008                   |
| 2. Soil Bearing Pressure:  | 2000 psf on 30" compacted fill |
| 3. Frost Protection:   | 30 inches minimum              |
| 4. Coefficient of Friction   | 0.25                           |
| 5. The soils engineer shall review all excavations and fill placement prior to placing concrete. |                                |

## EARTHWORK

- Clearing: The entire building area shall be scraped to remove all topsoil, including all vegetation and debris.
- Proof rolling: The natural undisturbed soil below all footings shall be proof rolled prior to placing concrete. Remove all soft spots and replace with compacted structural fill.
- Compacted structural fill: All fill material shall be a well-graded granular material with a maximum size less than 2" and with not more than 15% passing a #200 sieve. It shall be compacted to 95% of the maximum laboratory density as determined by ASTM D 1557. All fill shall be tested. Compacted structural fill shall be placed in lifts not exceeding 9" in uncompacted thickness.
- Consult the project specifications and soils report for further earthwork requirements. The soils engineer shall review all excavations and fill placement prior to placing concrete.

## CONCRETE

- Materials unless noted otherwise:
  - 1.1. Normal Weight aggregates ASTM C 33
  - 1.2. Light Weight aggregates ASTM C 330
  - 1.3. Light Weight concrete shall not exceed 110 pcf ( $\pm 3$  pcf)
  - 1.4. Fly Ash, Class F Pozzolan ASTM C618
  - 1.5. Reinforcing Steel
    - 1.5.1. General ASTM 615 Grade 60 (60 ksi)
    - 1.6. Deformed Bar Anchors (DBA) ASTM A496
    - 1.7. Headed Stud Anchors (HSA) ASTM A108
    - 1.8. Anchor Bolts
      - 1.8.1. Per Prefabricated Metal Building Manufacturer with ASTM A563 heavy hex nuts with ASTM F436 minimum  $\frac{3}{16}$ " thick washers.
    - 1.9. Admixtures: Air-entraining admixtures shall comply with ASTM C 260 (when used). Calcium chloride shall not be added to the concrete mix. Unreinforced concrete slabs on grade may have calcium chloride not exceeding one percent.
  - 1.10. Type II cement complying with ASTM C-150 shall be used for all concrete.
  - 1.11. The water/cement ratio for concrete 4000 psi and greater shall not exceed 0.50 (grout mixes are excluded).
  - 1.12. The slump of all concrete shall be limited to 4" unless plasticizers are used.
  - 1.13. Provide air entraining as recommended by ACI 318.
  - 1.14. Air entrainment shall be adjusted for the use of admixtures and fly ash.
  - 1.15. Fly Ash shall be a maximum of 20% of the cementitious material.
  - 1.16. No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete.
- Compressive strengths of concrete at 28 days shall be as follows:
  - 2.1. Footings 4000 psi
  - 2.2. Interior Slabs on Grade 4000 psi
  - 2.3. Walls 4000 psi
  - 2.4. All Site Cast Concrete 4000 psi
- The contractor shall be responsible for the design, detailing, care, placement and removal of all formwork and shores.
  - 3.1. Supporting forms and shoring shall not be removed until structural members have acquired sufficient strength to safely support their own weight and any construction load to which they may be subjected. In no case, however, shall forms and shoring be removed in less than 24 hours after concrete placement.
  - 3.2. Suspended slabs shall be re-supported after form removal until concrete reaches its 28-day specified compressive strength.
- Reinforcement shall have the following concrete cover:
  - 4.1. Cast-in-place Concrete Clear Cover
    - 4.1.1. Cast against and permanently exposed to earth 3"
    - 4.1.2. Formed concrete exposed to earth or weather:

#6 thru #18 bars	2"
#5 and smaller bars	$1\frac{1}{2}$ "
    - 4.1.3. Concrete not exposed to weather or in contact with ground:

Slabs, Walls, Joists; #11 bars and smaller	$\frac{3}{4}$ "
Beams, Columns: Primary Reinforcement, Ties,	$1\frac{1}{2}$ "
Stirrups, Spirals	

## EPOXY

- Epoxy in concrete shall be "HIT RE 500 SD" by Hilti Corporation, "Epocon Injection System" by Ramset/Redhead, "Power-Fast, Standard Set" by Powers, or approved equal.
- All drilled holes shall be sized per the manufacturers' recommendations.
- After drilling the proper size hole, clean the walls and bottom of the hole of all dust and debris using a nylon brush in conjunction with oil free compressed air. The hole shall be free of dust, debris and standing water.
- Follow all manufacturers' recommendations for epoxy installation.

## PREFABRICATED METAL BUILDINGS

- Design, Fabrication, and Erection: All prefabricated elements with their associated hardware shall comply with the latest requirements of the IBC, AISI, SDI, and AISI.
- Design Calculations: Prior to fabrication and installation of anchor bolts, the metal building supplier shall submit complete shop drawings and calculations including reactions bearing the stamp of a registered Professional Engineer, licensed in the same state as the building is to be built.
- Field Modifications: Do not modify any structural element of the prefabricated metal building without written consent and direction from the manufacturer. Send copies of the consent and modifications to the architect/engineer.
- Anchor bolts and baseplate connections of the prefabricated columns to the foundations shall be of the number, material, diameter, and layout shown in the drawings prepared by the prefabricated metal building designer/supplier/manufacturer. The depth of embedment for the anchor bolts and any other modifications required are shown in these structural contract drawings.
- Anchor Bolts for the attachment of miscellaneous framing members to masonry walls shall be of the number, material, diameter, and layout shown in the drawings prepared by the prefabricated metal building designer/supplier/manufacturer. The depth of embedment for the anchor bolts is shown in these structural contract drawings.
- Disclaimer: The Foundation Plan and associated foundation details are based solely upon estimated column and wall loads. Until actual loads are received by Dunn Associates, Inc., from the prefabricated metal building designer/supplier/manufacturer, these drawings are not to be used for construction.



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14126 PONY EXPRESS ROAD  
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## UTAH DIVISION OF FACILITIES, CONSTRUCTION AND MANAGEMENT (DFCM)

4110 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

01/14/08 RELEASED TO CLIENT  
03/25/08 PLAN REVIEW

PROJECT NO: 27353  
DESIGNED BY: TODD MAKI  
CHECKED BY: W. CHRIS BARKER  
DRAWN BY: BRETT ROBERTS

## GENERAL STRUCTURAL NOTES

**S101**  
SHEET OF

**Final Review Set  
February 2, 2008**

NOTE:  
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GENERAL STRUCTURAL NOTES

QUALITY ASSURANCE PLAN/SPECIAL INSPECTION REQUIREMENTS

1. Special inspection and testing as required by the IBC shall be provided by an independent agency employed by the owner unless waived by the building official. The contractor shall coordinate and cooperate with the required inspections/tests as indicated below, referring to the IBC section indicated as appropriate. Special inspection reports from the inspector shall be sent to the engineer and building official, bringing any discrepancies to the contractor's immediate attention. Any uncorrected discrepancies shall be brought to the attention of the engineer and building official prior to completion of that phase of the work. A final report documenting required special inspections and corrections of any discrepancies shall be provided (1704.1.2).
2. Section 1704: Special Inspections
- 2.1. Concrete (1704.4): Concrete construction shall be special inspected according to Table 1704.4, except in buildings 3 stories or less where structural design of continuous concrete footings is based on compressive strength, f'c, no greater than 2500 psi. In the absence of sufficient data or documentation showing conformance to quality standards for materials, testing shall be required to determine material properties under the direction of the building official according to Chapter 3 of ACI 318.
- 2.2. Soils (1704.7): Existing site soil conditions, fill placement and procedure and load-bearing requirements shall be special inspected to verify compliance with the approved soils report and Table 1704.7. Where total depth of controlled fill is 12" or less, special inspection is not required during fill placement.
- 2.3. Special Cases (1704.13): Special inspect all post-installed anchors per ICC report.

LEGEND OF MARKS AND ABBREVIATIONS

AB	Anchor Bolt	LB	Pounds (#)
ALT	Alternate		
ARCH	Architect	MAX	Maximum
		MECH	Mechanical
BLDG	Building	MFR	Manufacturer
BM	Beam	MIN	Minimum
BOTT	Bottom	MISC	Miscellaneous
BRDG	Bridging	MTL	Metal
BRG	Bearing		
BTWN	Between	NS	Near Side
		NTS	Not To Scale
CGS	Center of Gravity of Strand		
CJ	Central Joint	oc	On Center
CL	Center Line	OPNG	Opening
COL	Column	OPP	Opposite
CONC	Concrete		
CONT	Continuous	PCF	Pounds per Cubic Foot
COORD	Coordinate	PEN	Penetrate or Penetration
CTR	Center	PERP	Perpendicular
		PL	Plate
DB	Deck Bearing	PLF	Pounds per Lineal Foot
DBA	Deformed Bar Anchor	PREFAB	Prefabricated
DBL	Double	PSF	Pounds per Square Foot
DET	Detail	PSI	Pounds per Square Inch
DIA	Diameter	PT	Post Tension
DIM	Dimension		
DWG	Drawing	REINF	Reinforce
		REQD	Required
(E)	Existing		
EA	Each	SAD	See Architectural Drawings
EF	Each Face	SCHED	Schedule
EL	Elevation	SIM	Similar
ELEC	Electrical	SOG	Slab on Grade
ENGR	Engineer	STD	Standard
EQ	Equal	STL	Steel
EQUIP	Equipment	STRUCT	Structural
EQ SP	Equally Spaced		
EW	Each Way	T&B	Top and Bottom
EJ	Expansion Joint	TEMP	Temperature
EXT	Exterior	THRU	Through
		TOC	Top of Concrete
FLR	Floor	TOD	Top of Deck
FND	Foundation	TOF	Top of Footing
FS	Far Side	TOS	Top of Steel
FTG	Footing	TOW	Top of Wall
		TYP	Typical
ga	Gage		
GALV	Galvanized	UNO	Unless Noted Otherwise
CSN	General Structural Notes		
		VERT	Vertical
HORIZ	Horizontal		
HSA	Headed Stud Anchor	W/	With
		WWR	Welded Wire Reinforcement
ICBO	International Conference Of Building Officials	WP	Working Point
IBC	International Building Code		
INT	Interior		
K	Kip(S) = 1000 Pounds		
KLF	Kips Per Lineal Foot		
KSF	Kips Per Square Foot		

DEFERRED SUBMITTALS

1. Items requiring deferred submittals that are listed below are to be designed and fabricated by the manufacturer according to specifications given in structural and architectural drawings.
- 1.1. Concrete Mix Designs (by concrete supplier)
2. These deferred submittals shall first be submitted to the project architect and/or engineer for review and coordination. Upon completion of the architect/engineer review, a submittal to the city shall be made (for city review and approval). The city submittal shall include a letter stating that the architect/engineer review has been performed and that the plans and calculations for the deferred submittal items are found to be acceptable (e.g., with regard to geometry, load conditions, etc.) with no exceptions.
3. The final submittal shall be signed and sealed by a Professional Engineer licensed in the state in which construction will occur and shall be available at the jobsite throughout construction.



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DRAWN BY: BRETT ROBERTS

GENERAL  
STRUCTURAL  
NOTES

S102

SHEET OF

Final Review Set  
February 2, 2008

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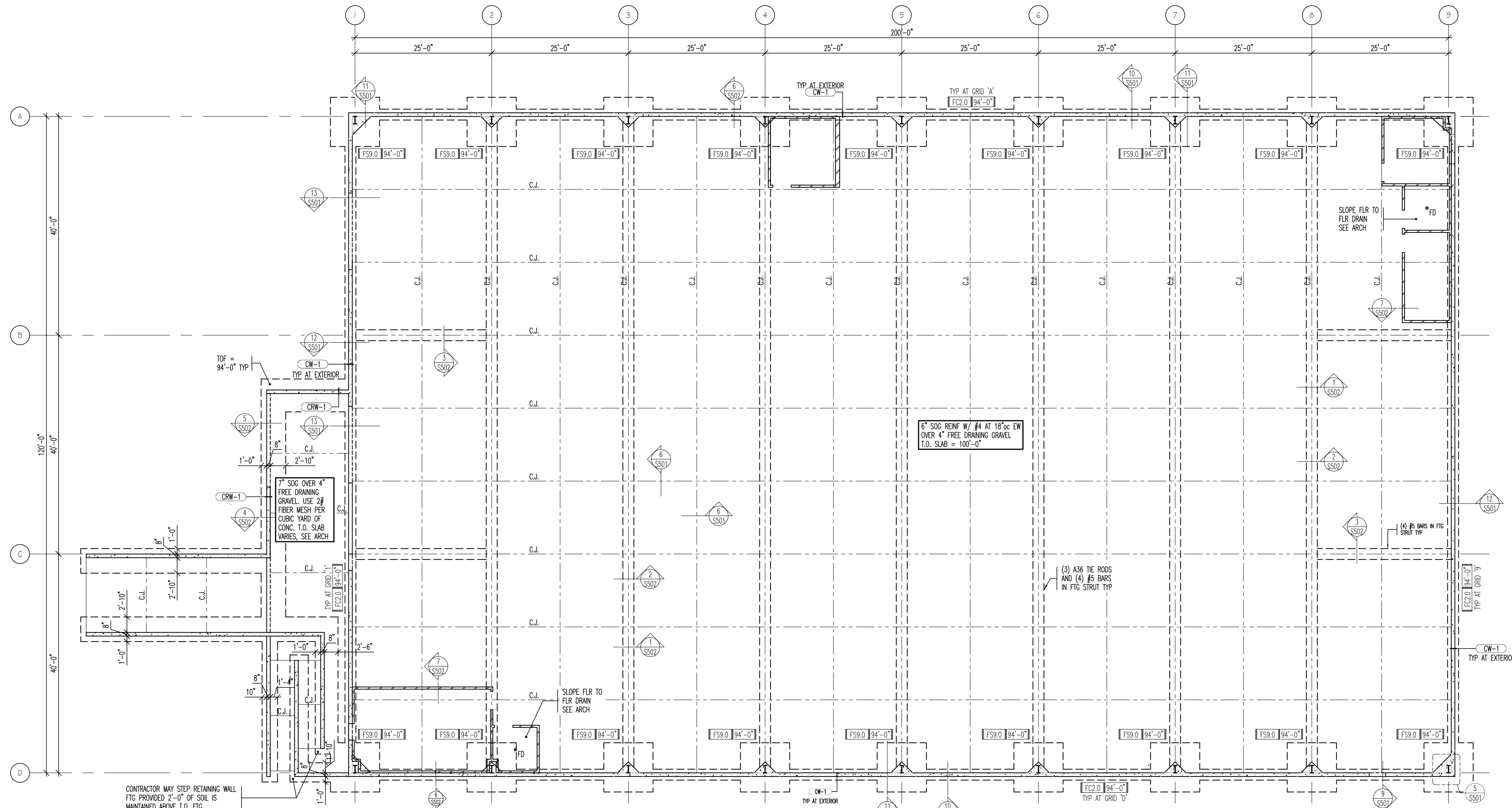
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## FOOTING AND FOUNDATION PLAN

# S201

SHEET OF



FOOTING AND FOUNDATION PLAN

SCALE: 3/32\"/>

### FOOTING AND FOUNDATION PLAN NOTES:

- SEE ARCHITECTURAL DRAWINGS AND CIVIL DRAWINGS FOR EXTERIOR CONCRETE WORK AT DOORS, SIDEWALKS, ETC.
- SEE ARCHITECTURAL DRAWINGS FOR SLAB DEPRESSIONS AND SLOPES TO DRAINS, ETC.
- REFER TO ANCHOR BOLT PLAN BY THE METAL BUILDING MANUFACTURER TO VERIFY ANCHOR BOLT DIAMETER, MATERIAL, AND LAYOUT OF ANCHOR BOLTS FOR THE COLUMNS DESIGNED AND SUPPLIED BY THE METAL BUILDING SUPPLIER.
- ANCHOR BOLT LENGTHS SHALL BE PER SCHEDULE ON SHEET (S301).
- SEE DETAILS ON SHEET (S501) FOR PIPES RUNNING PARALLEL AND PERPENDICULAR TO FOOTINGS.
- SEE DETAILS ON SHEET (S501) FOR CONSTRUCTION AND CONTROL JOINTS AT SLAB DEPRESSIONS.
- SEE DETAILS ON SHEET (S501) FOR REINFORCING REQUIRED AT DISCONTINUOUS JOINTS.
- SEE DETAILS ON SHEET (S501) FOR STRUCTURAL FILL DETAIL (IF REQUIRED BY SITE CONDITIONS).

### MARKS & SYMBOLS LEGEND

	SECTION MARK SHEET NUMBER		FLR OFFSET, SEE FTG AND FND DETS ON (S501)		CONT FTG, SEE SCHED ON (S301)
	FTG DESIGNATION TOF EL		DEPRESSED SLAB, SEE ARCH PLANS FOR EXACT LOCATION AND EL		SPOT FTG, SEE SCHED ON (S301)
	DEPRESSED FND WALL, POUR SLAB OVER, SEE FTG AND FND DETS ON (S501)		CONC WALL, SEE SCHED ON (S301)		THICKENED SLAB FTG, SEE SCHED ON (S301)
	FTG STEP, SEE FTG AND FND DETS ON (S501)		CONC WALL, SEE SCHED ON (S301)		CONC PIER, SEE SCHED ON (S301)
			STL STUD WALL, SEE SCHED ON (D301) FOR FRAMING AT OPENINGS		CONTROL JOINT, SEE FTG AND FND DETS ON (S501)

### Final Review Set February 2, 2008

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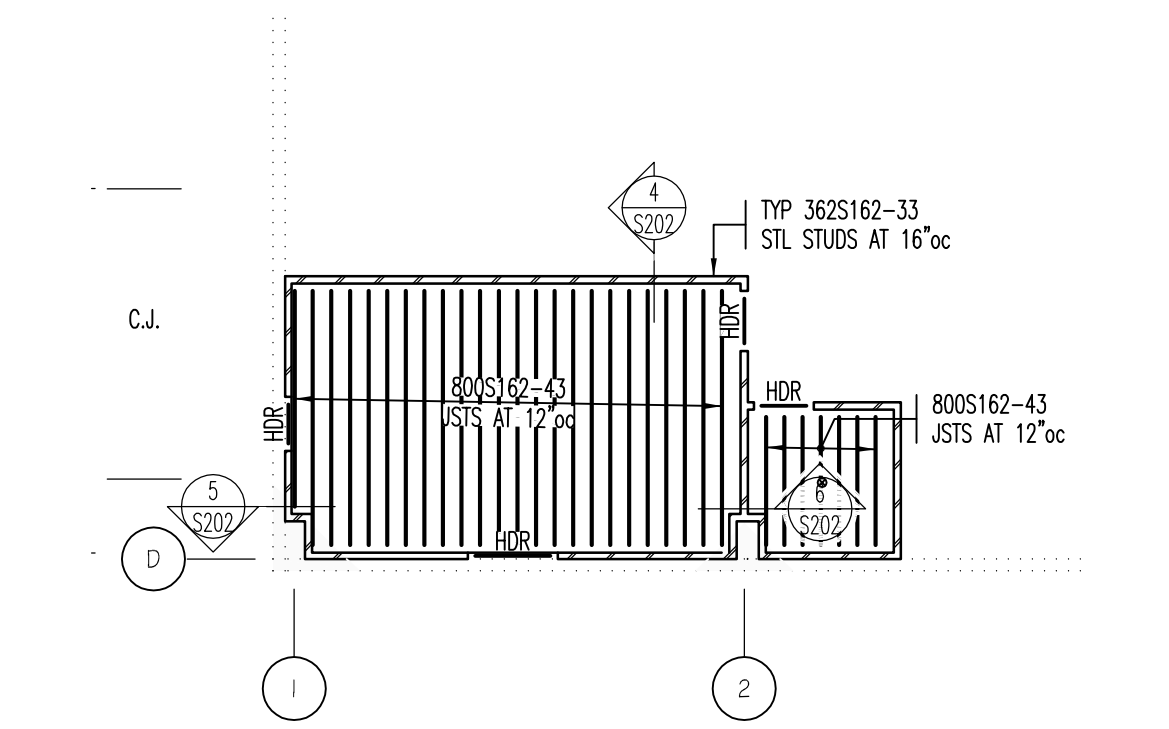
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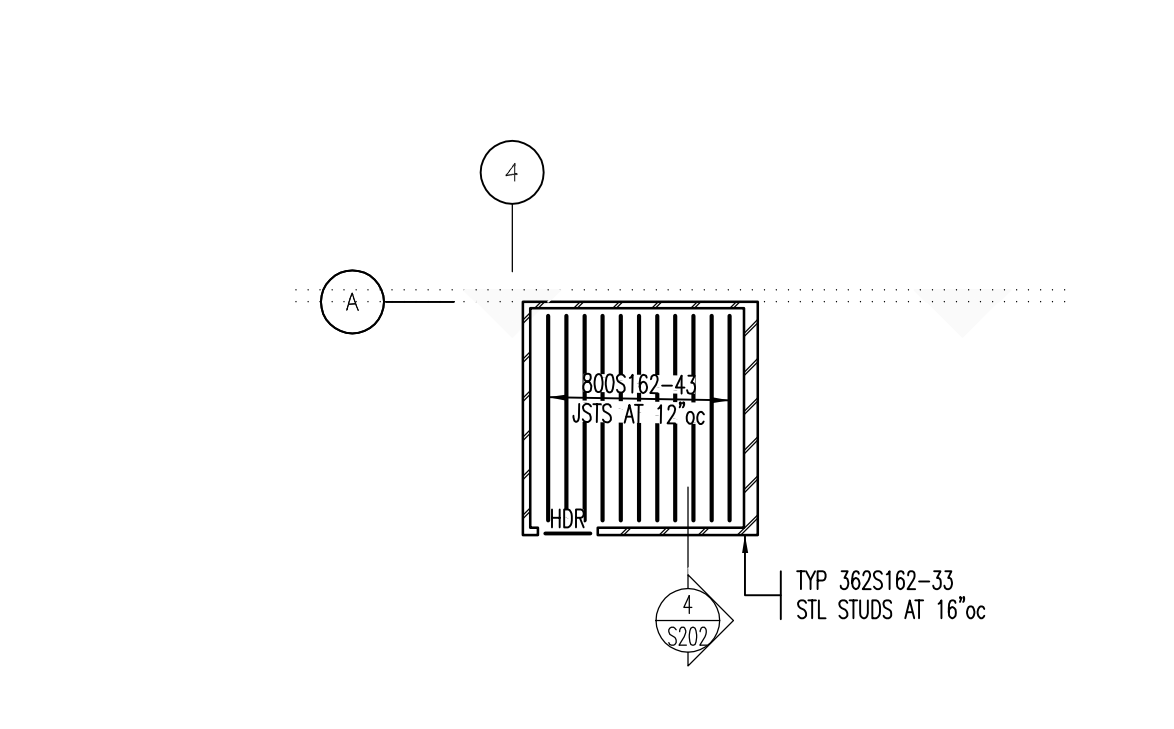
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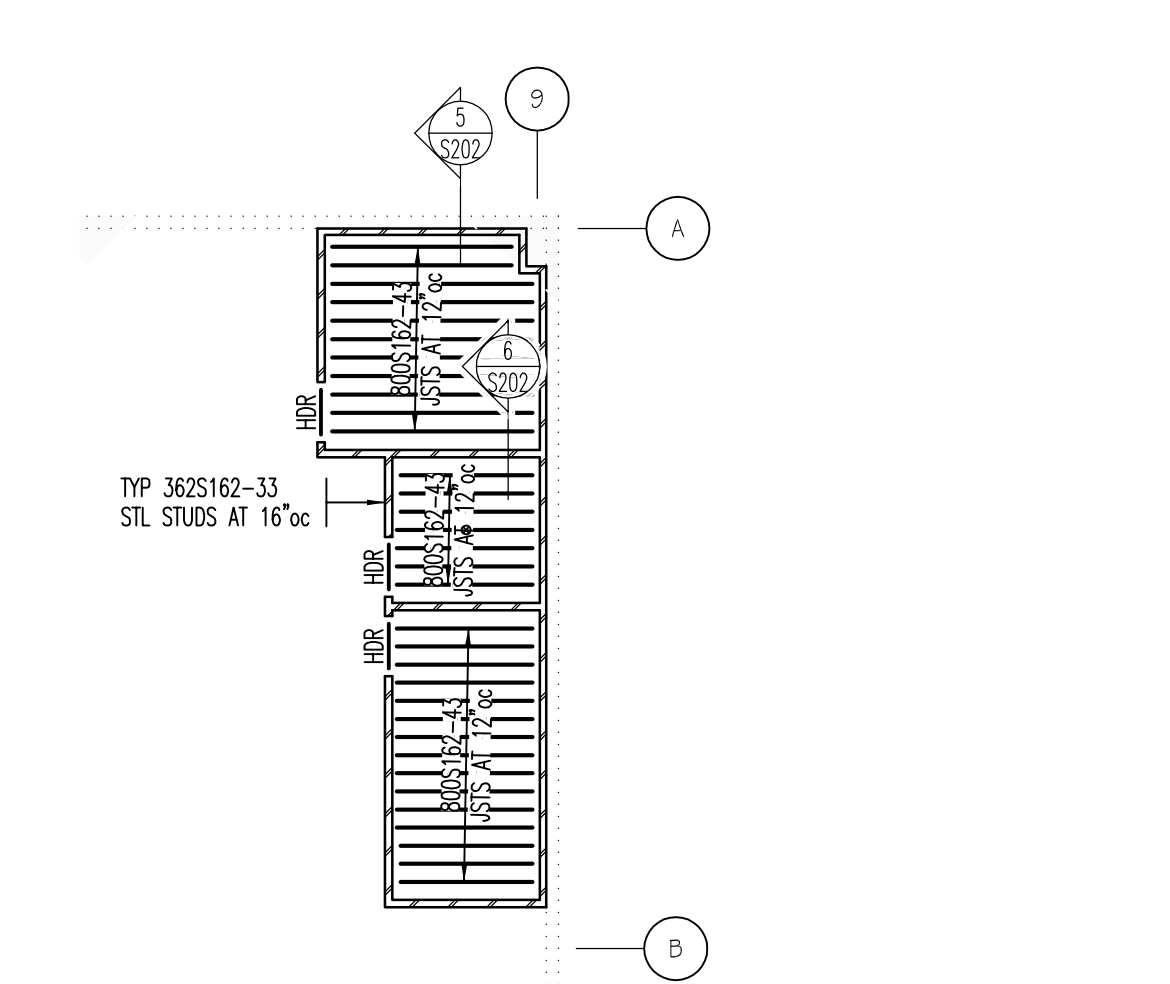
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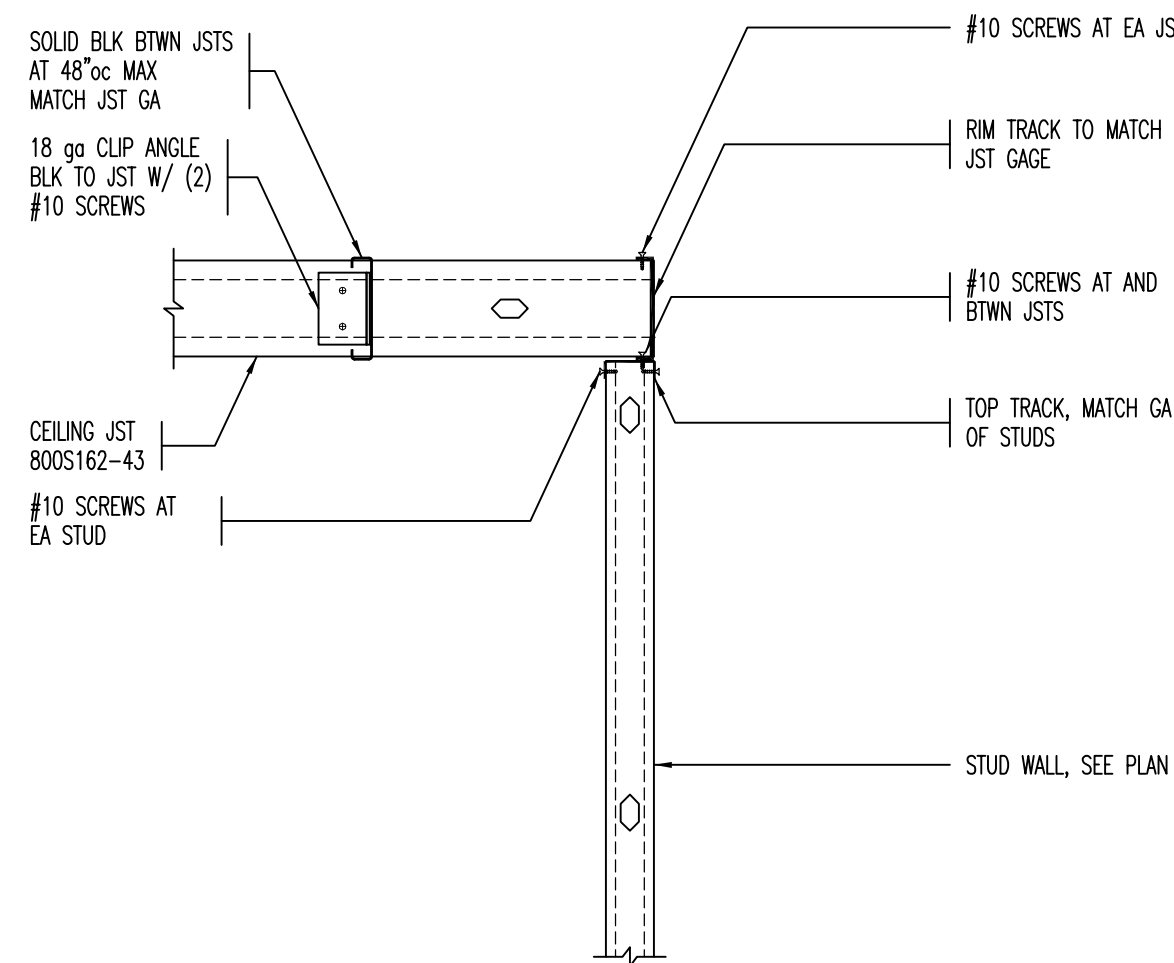
1 OFFICE PLAN  
SCALE: 3/32" = 1'-0"



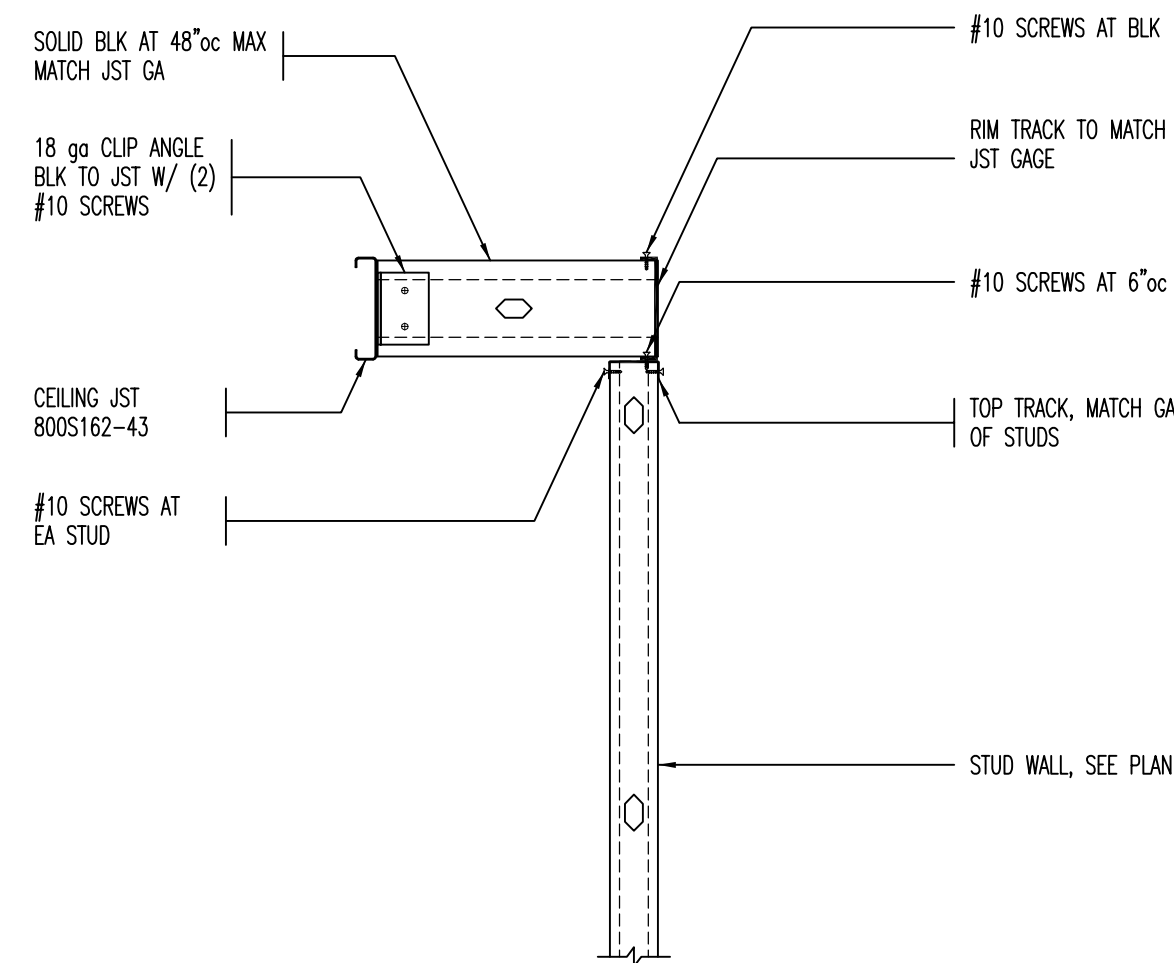
2 OFFICE PLAN  
SCALE: 3/32" = 1'-0"



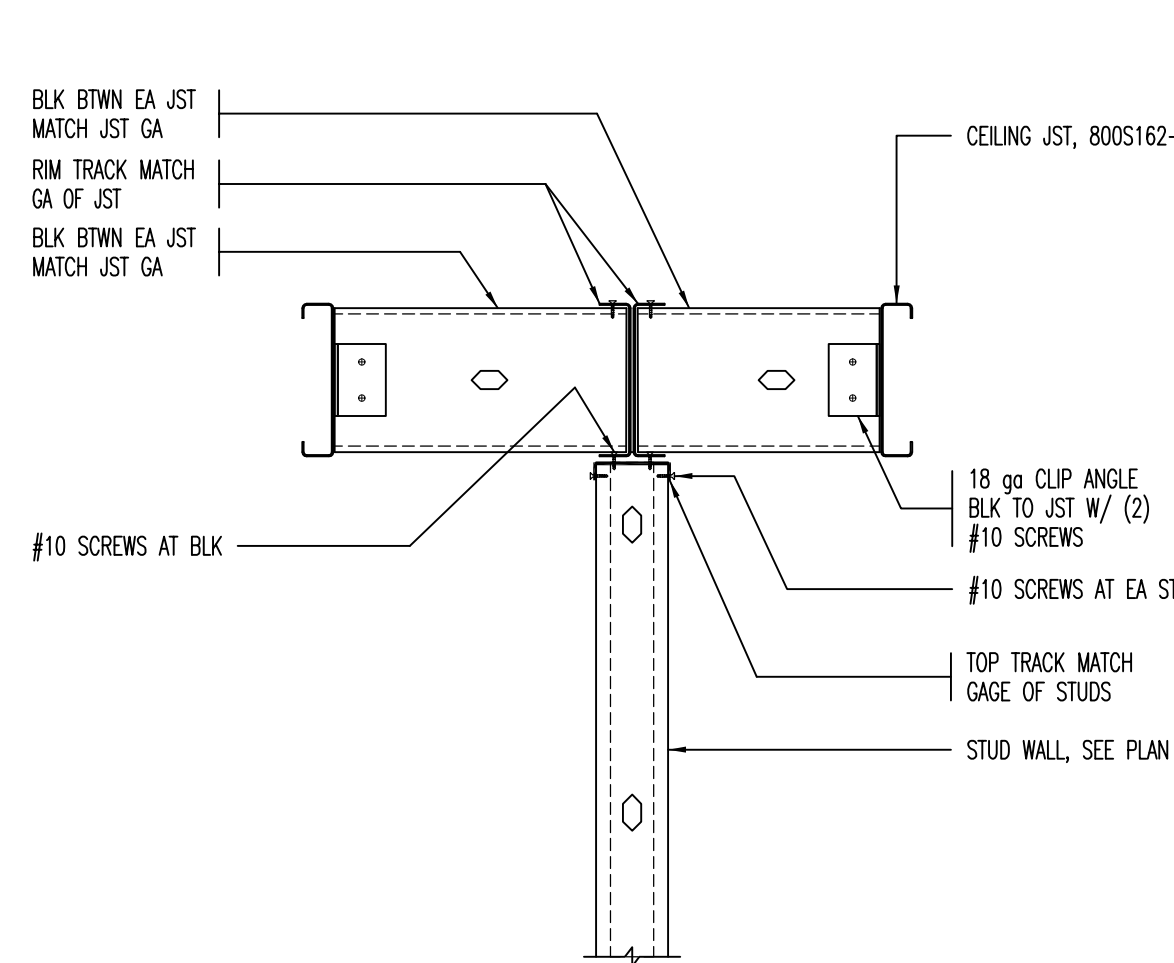
3 OFFICE PLAN  
SCALE: 3/32" = 1'-0"



4 TYPICAL JOIST BEARING AT STUD WALL DETAIL  
NO SCALE



5 TYPICAL STUD WALL DETAIL AT PARALELL CONDITION  
NO SCALE



6 CEILING JOIST BLOCKING AT WALL - TWO SIDES  
NO SCALE

**Final Review Set  
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**MEZZANINE  
FRAMING PLAN  
AND DETAILS**

**S202**  
SHEET OF

**CONCRETE FOOTING NOTES:**

1. PLACE ALL FOOTING REINFORCING IN BOTTOM OF FOOTING WITH 3" CLEAR CONCRETE COVER, UNLESS NOTED OTHERWISE.
2. TOP REINFORCING, WHERE SPECIFIED, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" MINIMUM CONCRETE COVER.
3. IF FOOTINGS ARE EARTH FORMED, FOOTING WIDTH AND LENGTH SHALL BE 6" WIDER AND LONGER THAN SCHEDULED.
4. SEE GENERAL STRUCTURAL NOTES FOR ALL OTHER REQUIREMENTS.
5. NOT ALL FOOTINGS ARE USED. SEE FOUNDATION PLAN FOR FOOTING MARKS.
6. RUN CONTINUING BARS IN 1'0" FOOTING THROUGH INTERSECTED 'TS' FOOTINGS.

TYPICAL FOOTING REINFORCING

TYPICAL FOOTING SECTION

## NO SCALE

**CONCRETE WALL NOTES:**

1. SEE GENERAL STRUCTURAL NOTES FOR REQUIREMENTS NOT NOTED IN SCHEDULE.
2. CONCRETE WALLS NOT DESIGNATED ON THE PLANS SHALL BE REINFORCED AS FOLLOWS:
 

THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
6"	#4 BARS AT 18"cc.	#4 BARS AT 16"cc.
8"	#4 BARS AT 18"cc.	#4 BARS AT 12"cc.
10"	#4 BARS AT 18"cc.	#5 BARS AT 13"cc.
12"	#4 BARS AT 18"cc. EACH FACE	#4 BARS AT 16"cc. EACH FACE

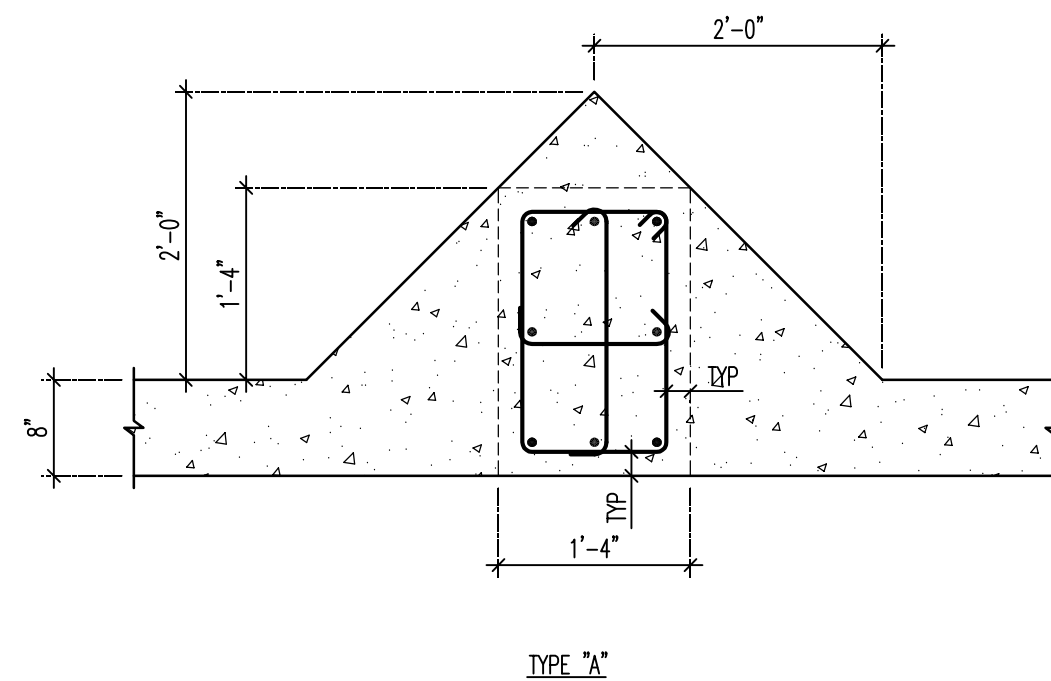
- a. PLACE STEEL IN THE CENTER OF THE WALL (EXCEPT TYPE "B" AND RETAINING WALLS). WALLS THICKER THAN 10" SHALL HAVE TWO CURTAINS OF REINFORCEMENT (PLACED NEAR EACH FACE OF THE WALL), UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- b. FOR WALLS 10" AND THINNER (ONE) #7 (OR TWO) #5 x CONTINUOUS HORIZONTAL BAR SHALL BE PLACED AT THE BOTTOM OF THE WALL (NEAR THE FOOTING) AT EACH FLOOR LEVEL x AT ROOF LEVEL, AND AT THE TOP OF THE WALL. FOR WALLS THICKER THAN 10" (2) #5 BARS SHALL BE PLACED AT THESE LOCATIONS.

3. WALLS SHALL BE SHORED UNTIL THEY ARE TIED INTO THE FLOOR SLAB.

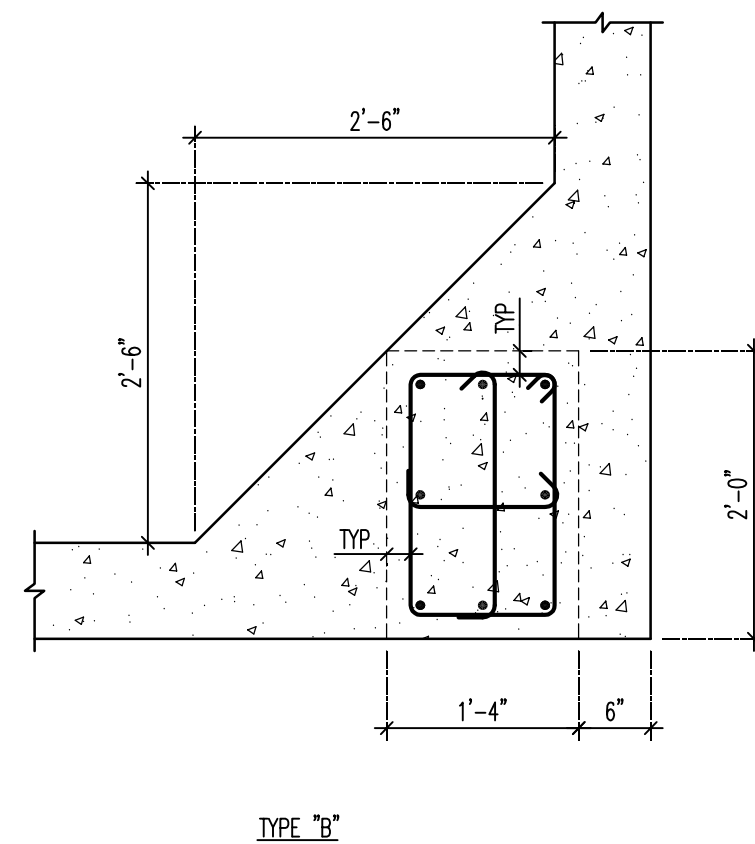
## NO SCALE

**CONCRETE PIER NOTES:**

1. INSTALL (3) SETS OF TIES AT 3"oc. AT TOP OF ALL PIERS (U.N.O.).
2. CONFIGURATION OF ALL PIERS MAY BE ADJUSTED FOR BASE PLATE CONFIGURATIONS OF PREFAB COLUMNS.
3. TOP OF ALL PIERS = 100'-0"

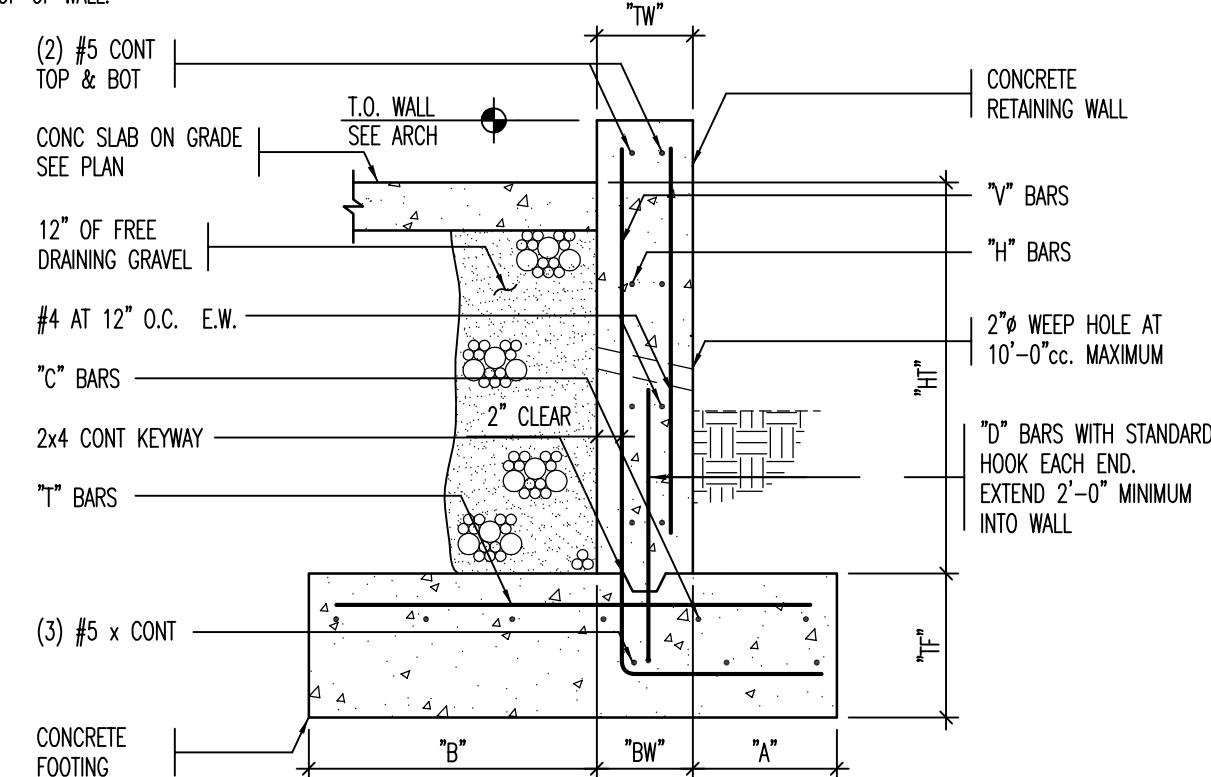


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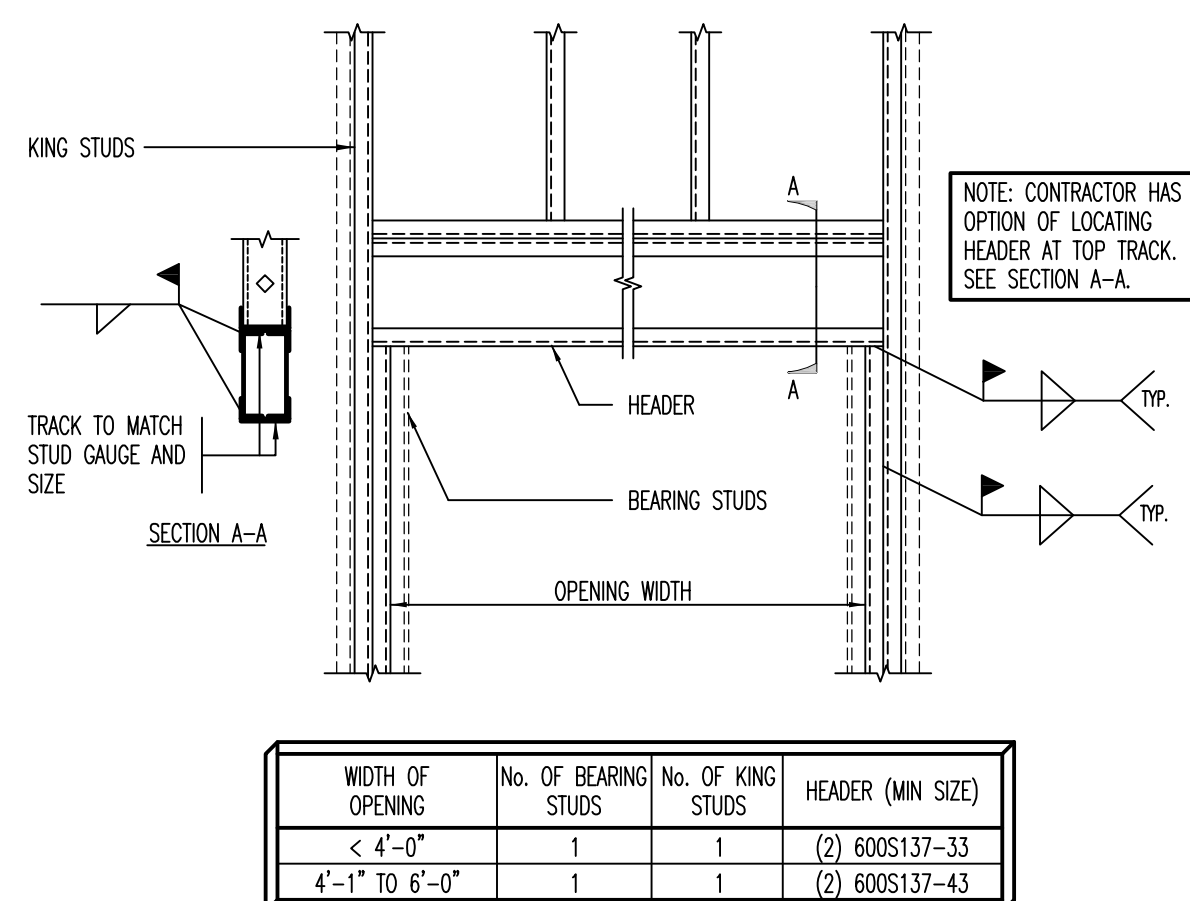


NOTES:

1. "V" BARS SHALL NOT BE SPICED BELOW MID-HEIGHT OF WALL.
2. FOR WALLS WITH "HT" OF 9'-0" AND GREATER. ONE HALF OF THE "V" BARS CAN BE DISCONTINUED FROM MID-HEIGHT TO TOP OF WALL.



## NO SCAL



## NO SCAL

WIDTH OF OPENING	No. OF BEARING STUDS	No. OF KING STUDS	HEADER (MIN SIZE)
< 4'-0"	1	1	(2) 600S137-33
4'-1" to 6'-0"	1	1	(2) 600S137-43

**NOTE:**  
THESE STRUCTURAL DRAWINGS ARE BASED ON  
ARCHITECTURAL DRAWINGS DATED 01.21.2008

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PLANS AND DETAILS FOR THE CONVENIENCE OF THE  
CONTRACTOR. VERIFY DIMENSIONS AND ELEVATIONS  
WITH ARCHITECTURAL DRAWINGS.



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SALT LAKE CITY, UTAH 84114

0	01/14/08 RELEASED TO CLIENT
1	03/25/08 PLAN REVIEW

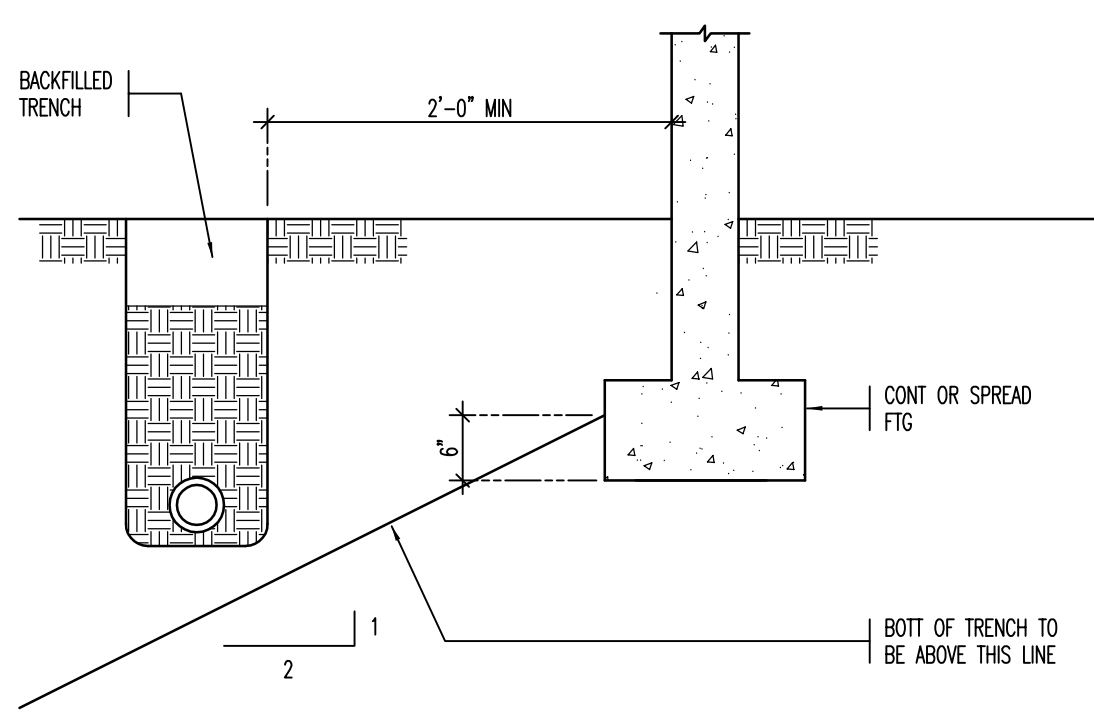
PROJECT NO: 27353  
DESIGNED BY: TODD MAKI  
CHECKED BY: W. CHRIS BARKER  
DRAWN BY: BRETT ROBERTS

## SCHEDULES

# S301

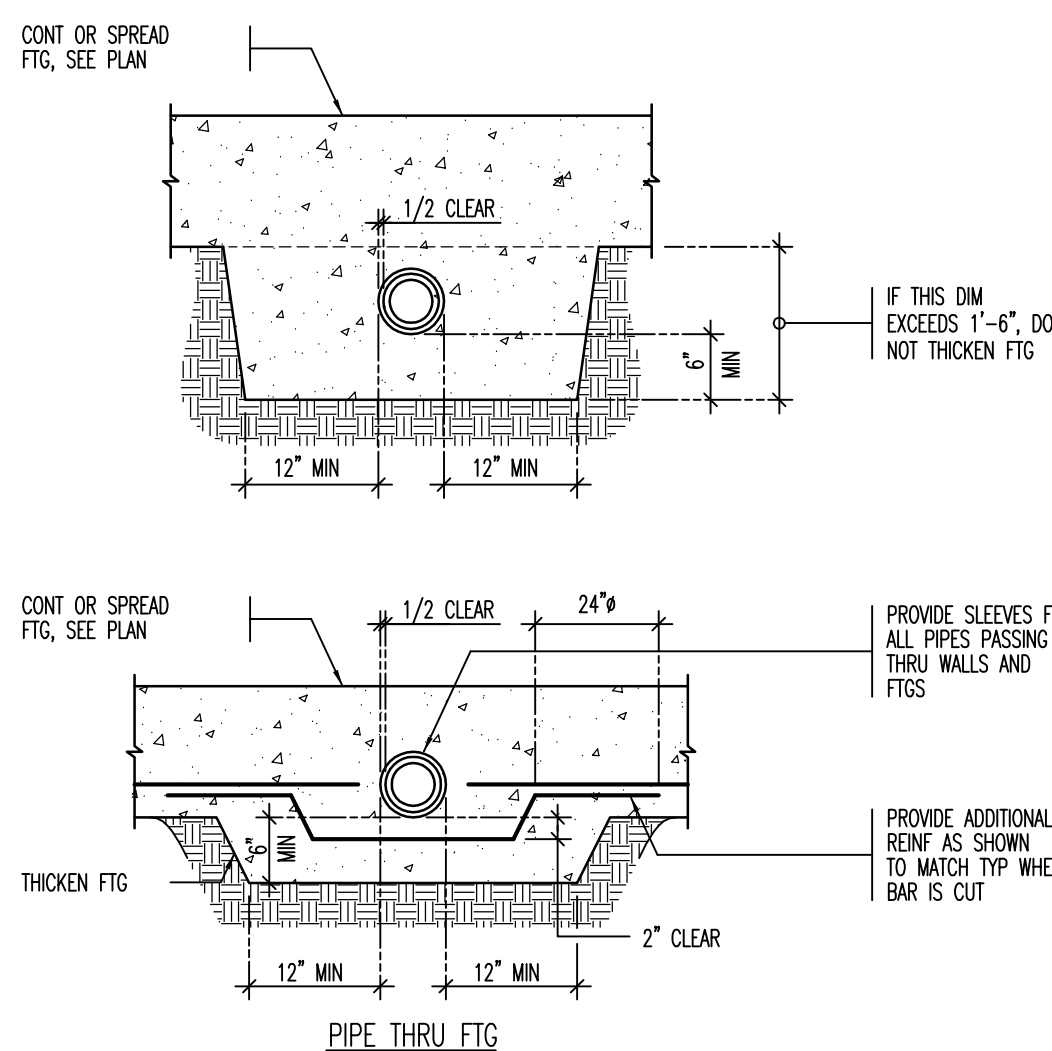
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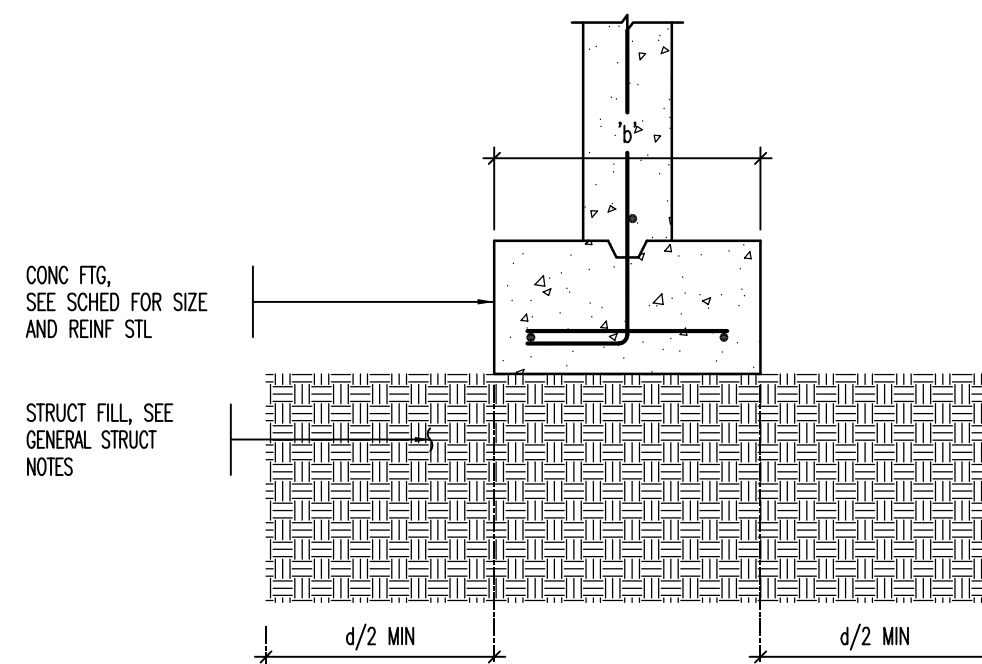
1 PIPE PARALLEL TO FOOTING DETAIL

01B 0000



2 PIPE PERP TO FOOTING DETAIL

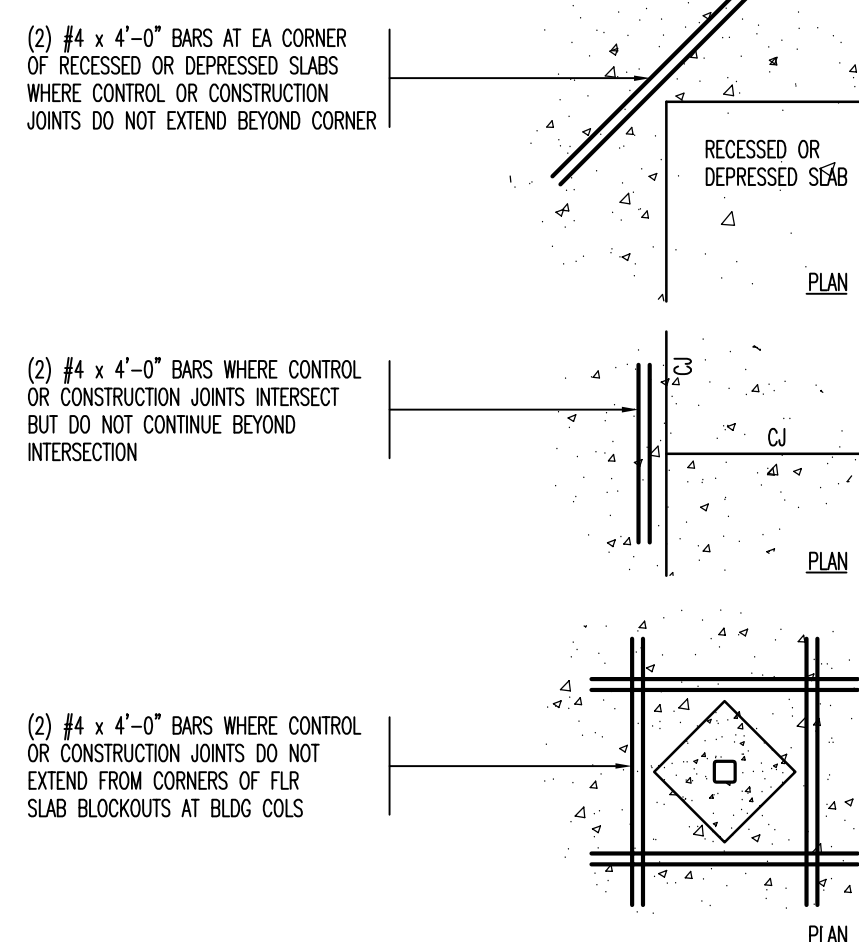
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3 COMPACTED STRUCT FILL DETAIL

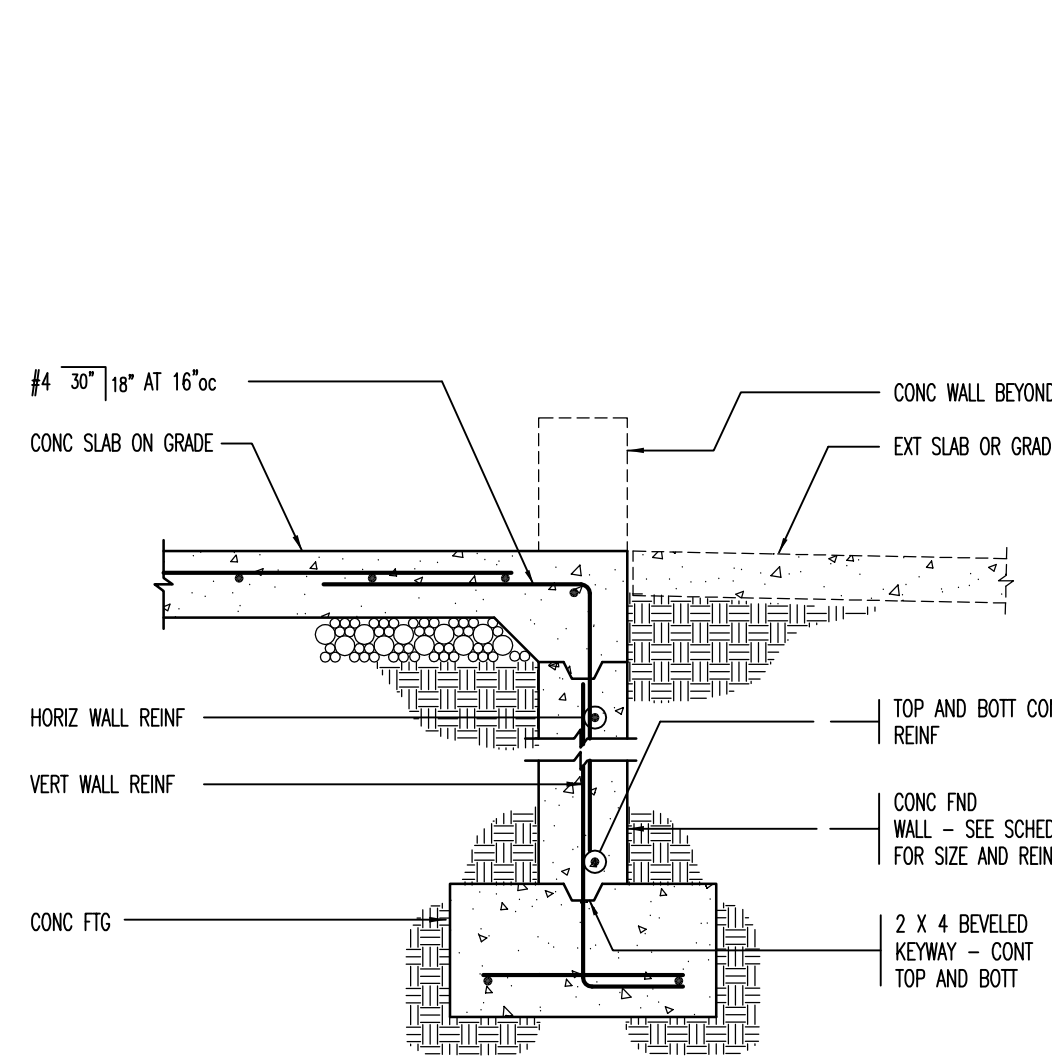
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LOCATIONS REQUIRING ADDITIONAL SLAB REINF STL:



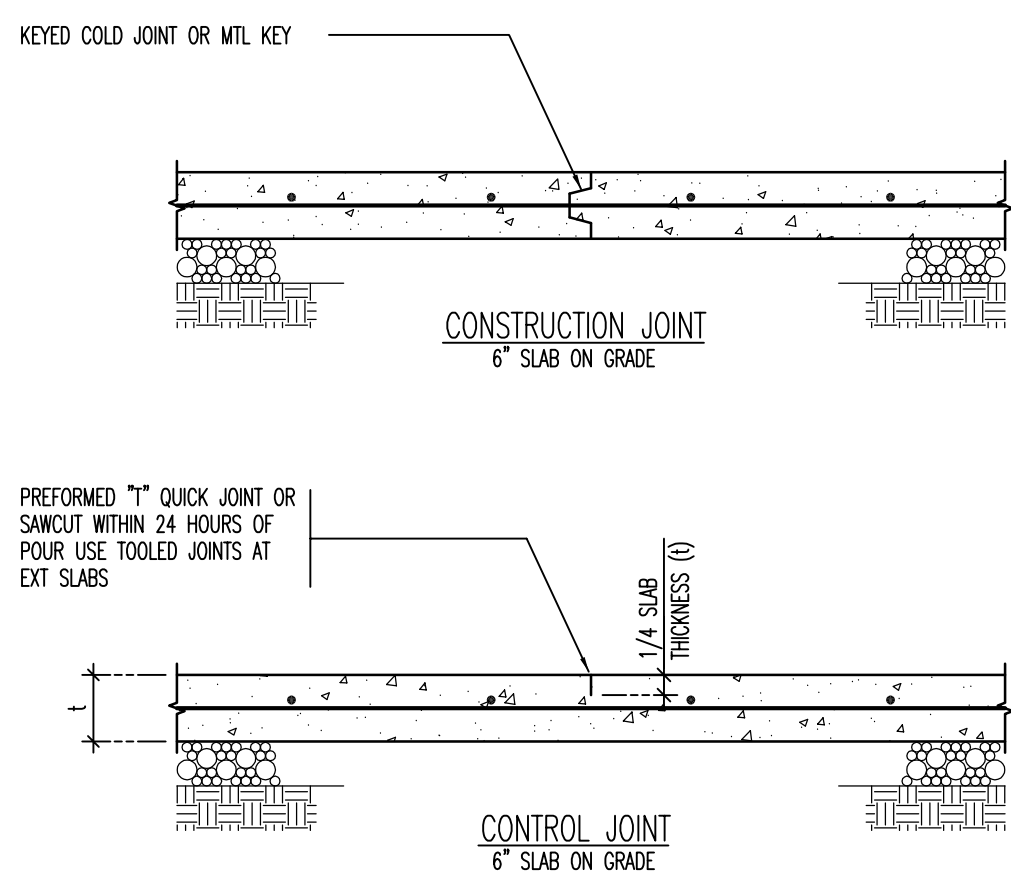
4 TYP FOOTING STEP DETAIL AT CONCRETE FOUNDATION WALL

01B 0000



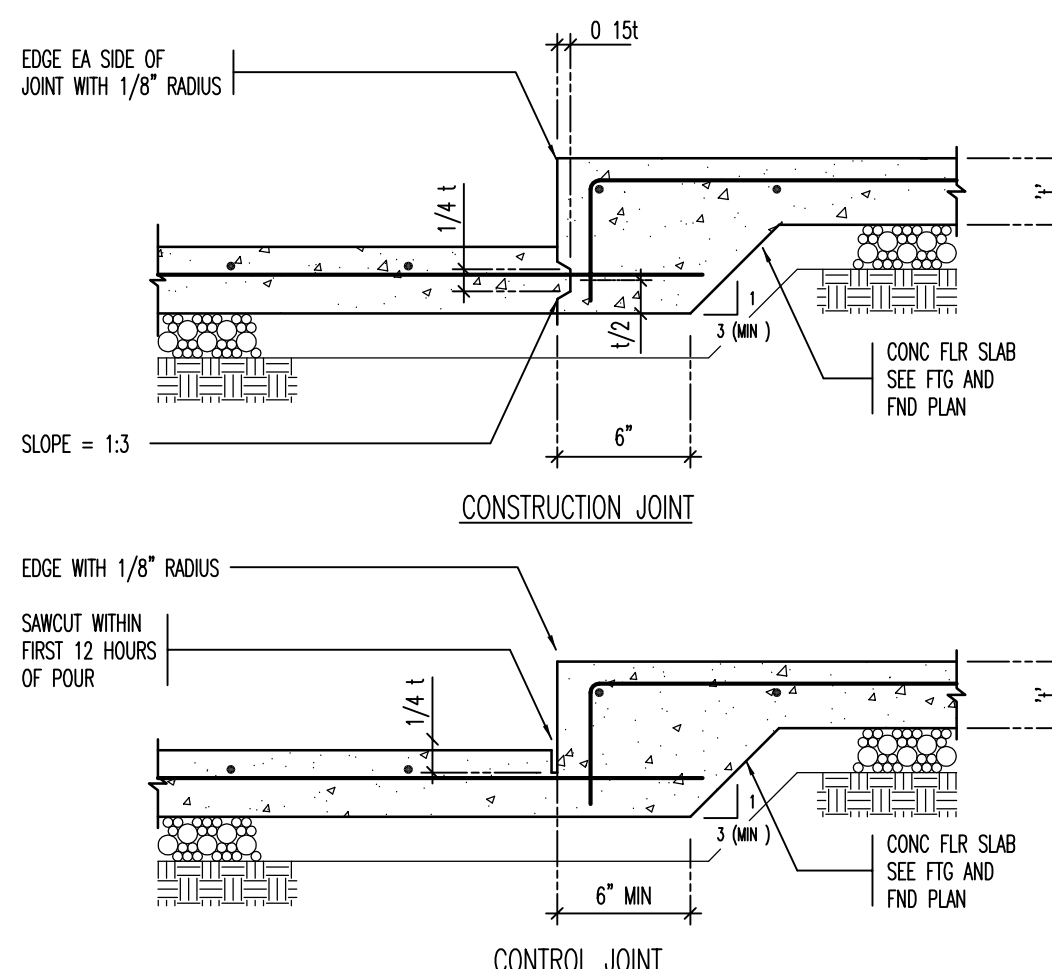
5 TYP CORNER WALL REINFORCING DETAILS PLAN VIEW

01B 0000



6 TYP SLAB ON GRADE JOINT DETAILS

01B CS 0000



7 TYP SLAB DEPRESSION DETAILS

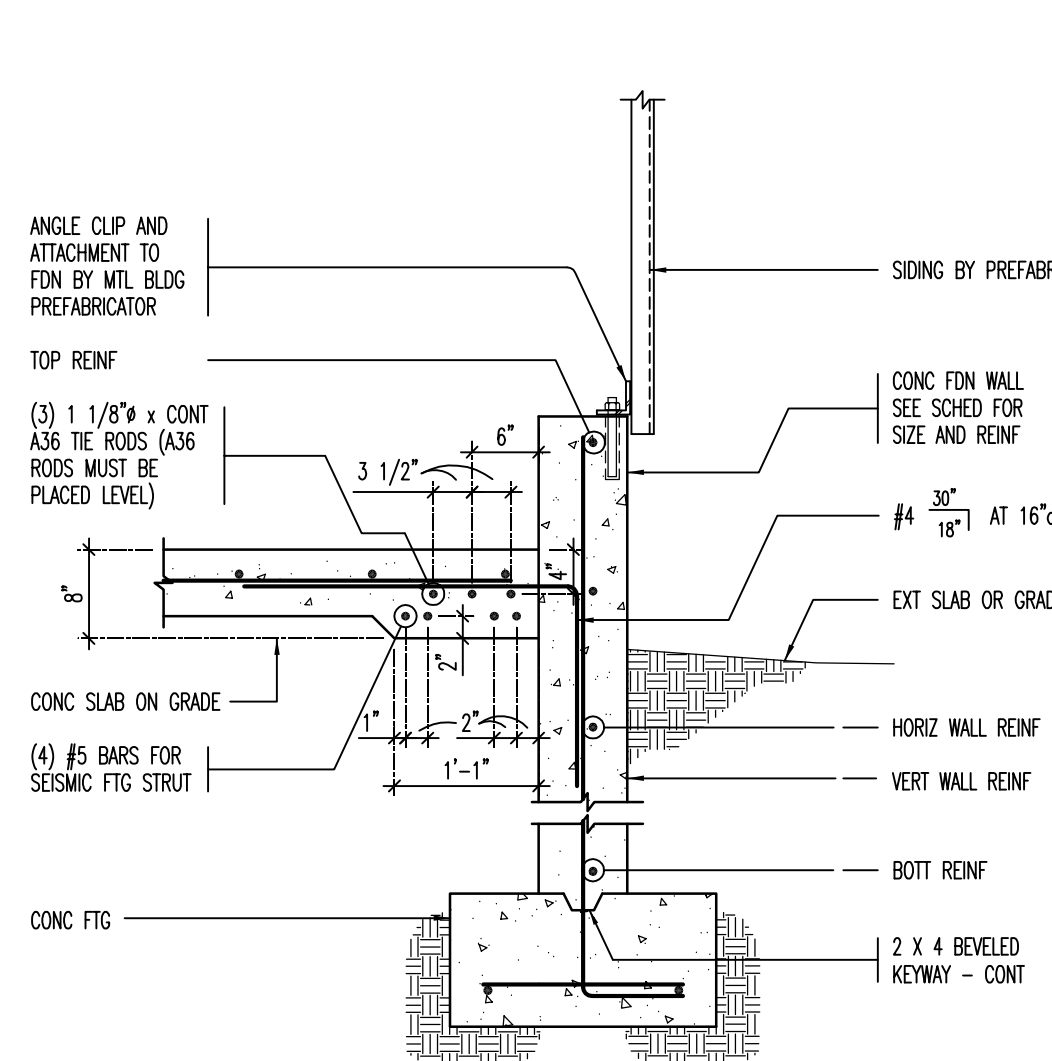
01B CS 0000

8 ADDITIONAL SLAB REINF DETAILS

01B 0000

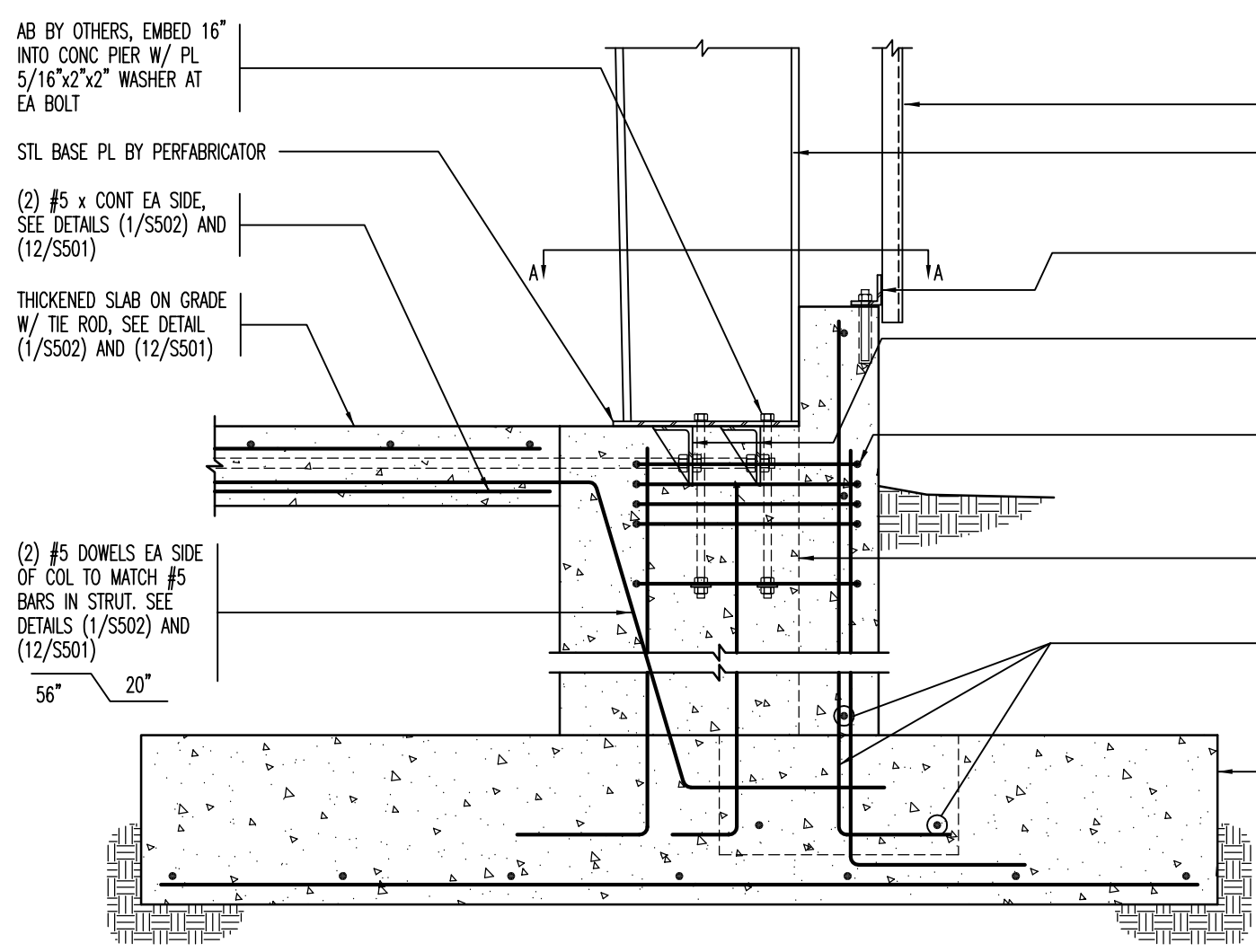
9 FOUNDATION WALL OPENING DETAILS

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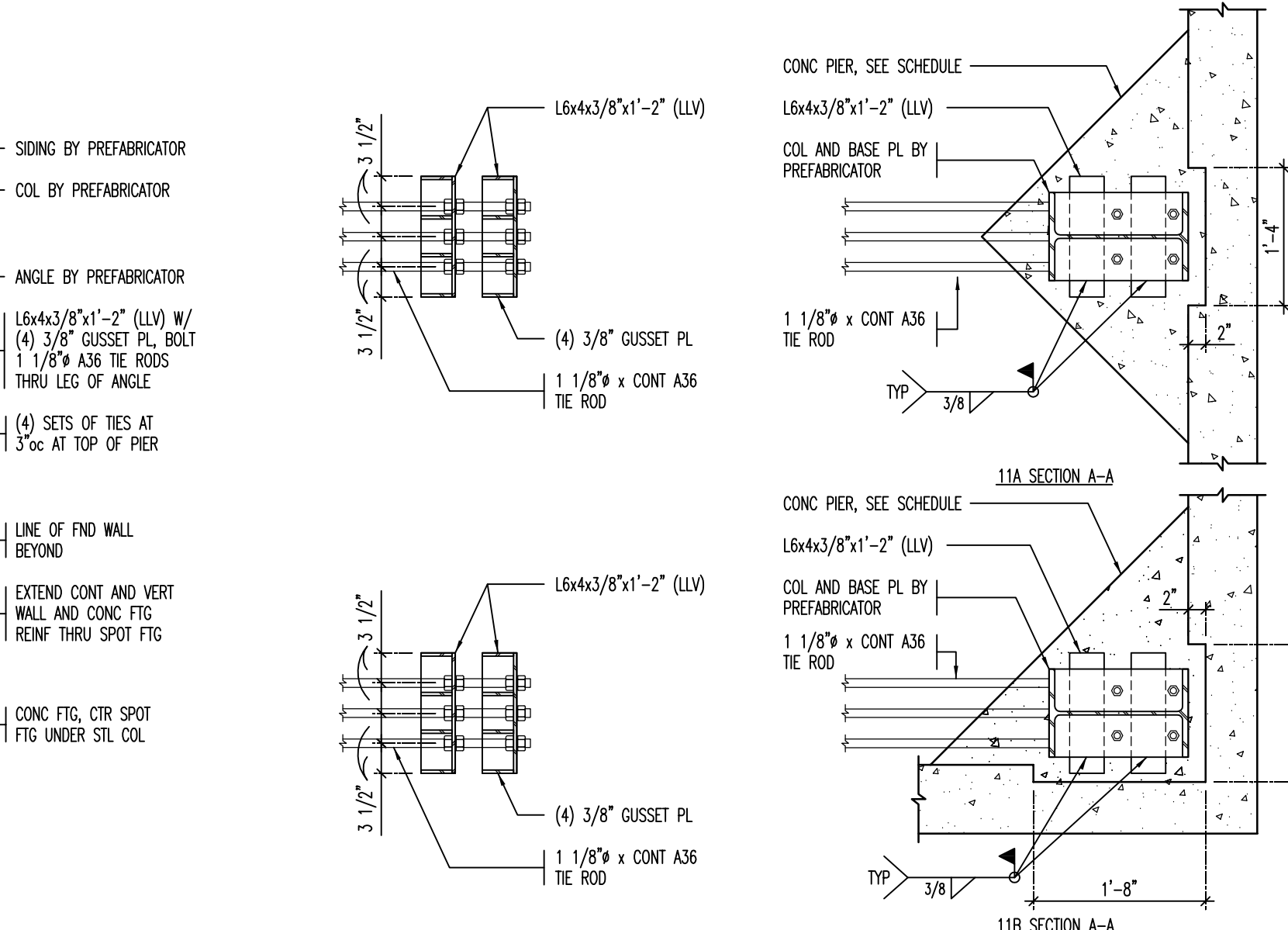
10 TYP FOUNDATION WALL DETAILS

20020201



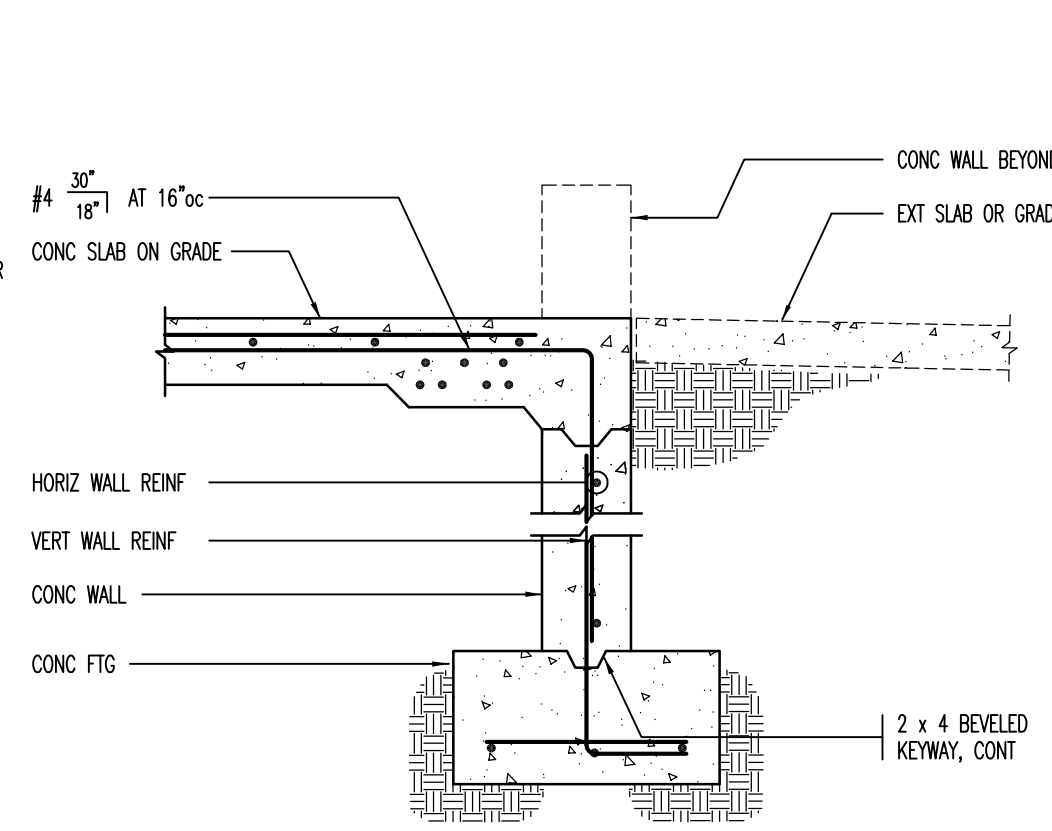
11 TYPICAL STEEL COLUMN AT CONCRETE PIER DETAIL

27353501



12 TYPICAL FOUNDATION WALL DETAIL AT THICKENED SLAB AT TIE RODS

27353501

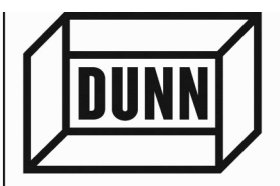


13 FOUNDATION WALL OPENING DETAIL AT THICKENED SLAB TIE ROD / FOOTING STRUT

27353501

Final Review Set  
February 2, 2008

NOTE:  
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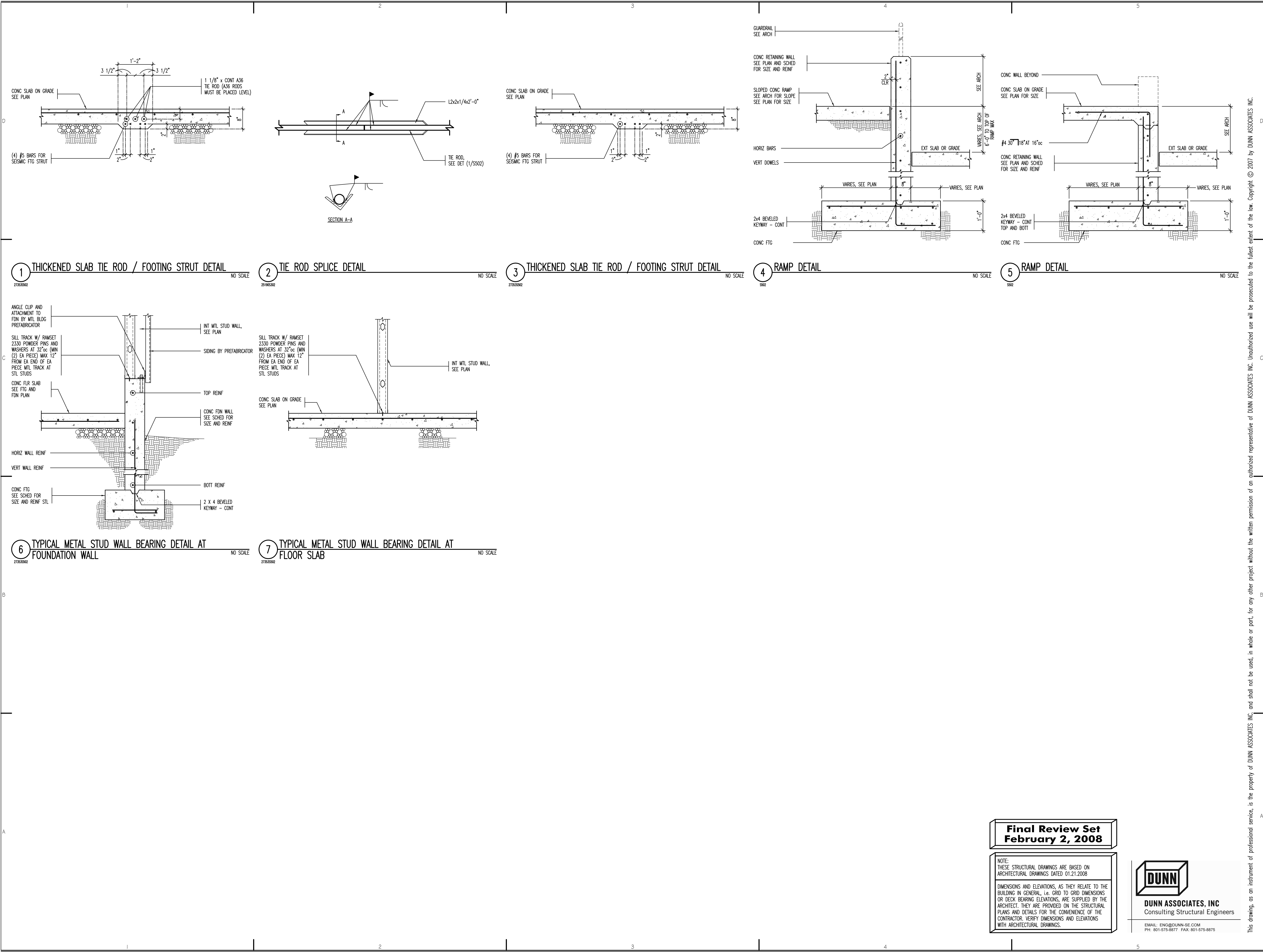
PROJECT NO: 27353  
DESIGNED BY: TODD MAKI  
CHECKED BY: W. CHRIS BAKER  
DRAWN BY: BRETT ROBERTS

FTG AND FND  
DETS

S501

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ABBREVIATIONS					
Ø	ROUND, DIAMETER, PHASE	EWT	ENTERING WATER TEMPERATURE	OZ	OUNCE
ABS	ACRYLONITRILE-BUTADIENE-STYRENE, ABSOLUTE	EXH	EXHAUST	P	PUMP
ACCU	AIR COOLED CONDENSING UNIT	EXP	EXPANSION	PD	PRESSURE DROP/DIFFERENCE
A/C	AIR CONDITIONING	EXT	EXTERIOR	PE	POLYETHYLENE
AD	ACCESS DOOR, AREA DRAIN	F	FAHRENHEIT	PEX	CROSS-LINKED POLYETHYLENE
ADA	AMERICAN DISABILITIES ACT	FC	FLEXIBLE CONNECTION, FORWARD CURVED	PF	PRE-FILTER
AF	AIR FOIL, AIR FILTER	FCO	FLOOR CLEAN OUT	PH	PHASE
AFF	ABOVE FINISH FLOOR	FCU	FAN COIL UNIT	PIV	POST INDICATOR VALVE
AHU	AIR HANDLING UNIT	FD	FLOOR DRAIN, FIRE DAMPER	PLMB	PLUMBING
ALT	ALTITUDE, ALTERNATE	FDC	FIRE DEPARTMENT CONNECTION	POC	POINT OF CONNECTION
AMB	AMBIENT	FF	FINISH FLOOR, FINAL FILTER	POL	PETROLEUM, OIL, AND LUBRICANTS
AMP	AMPERE (AMP, AMPS)	FL	FLOW LINE	PRS	PRESSURE REDUCING STATION
AP	ACCESS PANEL	FLEX	FLEXIBLE	PRV	PRESSURE REDUCING VALVE
APD	AIR PRESSURE DROP	FO	FLAT OVAL	PSF	POUNDS PER SQUARE FOOT
ARCH	ARCHITECT	FP	FIRE PROTECTION	PSI	POUNDS PER SQUARE INCH
AS	AIR SEPARATOR	FPM	FEET PER MINUTE	PTAC	PACKAGED TERMINAL AIR CONDITIONER
AV	ACID VENT, AIR VENT	FS	FLOOR SINK	PVC	POLYVINYL CHLORIDE
B	BOILER	FSD	FIRE SMOKE DAMPER	R	THERMAL RESISTANCE, RANKINE, RETURN
BAL	BALANCE	FSTAT	FREEZESTAT	RA	RETURN AIR
BAS	BUILDING AUTOMATION SYSTEM	FT	FEET	RAD	RADIUS
BBR	BASEBOARD RADIATOR	FTR	FIN TUBE RADIATION	RCP	RADIANT CEILING PANEL
BDD	BACKDRAFT DAMPER	FURN	FURNACE, FURNISH, FURNITURE	RD	ROOF DRAIN
BFP	BACKFLOW PREVENTER	FV	FACE VELOCITY	RECIRC	RECIRCULAT(E),(OR),(ING)
BFV	BUTTERFLY VALVE	G	GAUGE, NATURAL GAS	REF	REFRIGERAT(OR),(ION)
BHP	BRAKE HORSEPOWER	GA	GAGE	REQ'D	REQUIRED
BI	BACKWARD INCLINED	GAL	GALLON	RF	RETURN FAN
BOD	BOTTOM OF DUCT	GALV	GALVANIZED	RH	RELATIVE HUMIDITY
BOP	BOTTOM OF PIPE	GC	GENERAL CONTRACTOR	RM	ROOM
BT	BATH TUB	GD	GARAGE DRAIN	RPBP	REDUCED PRESS. BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT	GH	GRAVITY HOOD	RM	ROOM
BTUH	BRITISH THERMAL UNITS/HR	GPM	GALLONS PER MINUTE	RPM	REVOLUTIONS PER MINUTE
BV	BALL VALVE	GT	GREASE TRAP	RTU	ROOF TOP UNIT
C	CHILLER	HB	HOSE BIBB	REV	REVOLUTION, REVISION, REVERSE
CA	COMPRESSED AIR	H/C, HC	HEATING COIL	S	SECONDS, SUPPLY, SINK
CAP	CAPACITY	HEPA	HIGH EFFICIENCY PARTICULATE AIR	SA	SUPPLY AIR, SOUND ATTENUATOR
CAV	CONSTANT AIR VOLUME	HOA	HAND, OFF, AUTO	SAN	SANITARY
C/C, CC	COOLING COIL	HP	HORSEPOWER, HEAT PUMP	SAT	SATURATED
CD	CONDENSATE DRAIN, CEILING DIFFUSER	HR	HOOR	SCFM	STANDARD CUBIC FEET PER MINUTE
CFM	CUBIC FEET PER MINUTE	HSTAT	HUMIDISTAT	SD	STORM DRAIN, SMOKE DAMPER SECTION
CFOI	CONTRACTOR FURN., OWNER INSTALLED	HT	HEIGHT	SECT	SECTION
CHW	CHILLER WATER	HVAC	HEATING, VENTILATING, AIR-CONDITIONING	SEN	SENSIBLE
CO	CLEAN OUT, CARBON MONOXIDE	HX	HEAT EXCHANGER	SHT	SHEET
CO2	CARBON DIOXIDE	HZ	FREQUENCY	SIM	SIMILAR
CONC	CONCRETE	IAQ	INDOOR AIR QUALITY	SL	SEA LEVEL
COND	CONDENS(ER),(ING),(ATE),(ATION)	ID	INSIDE DIAMETER	SP	STATIC PRESSURE
CONT	CONTINUOUS	IE	INVERT ELEVATION	SPEC	SPECIFICATION
COP	COEFFICIENT OF PERFORMANCE, COPPER	IN	INCH	SQ	SQUARE
COTG	CLEANOUT TO GRADE	IN WC	INCHES, WATER COLUMN	SS	SERVICE SINK, STAINLESS STEEL
CPVC	CHLORINATED POLY VINYL CHLORIDE	INV	INVERT	STC	SOUND TRANSMISSION CLASS
CT	COOLING TOWER	I/O	INPUT/OUTPUT	STD	STANDARD
CU	CONDENSING UNIT, CUBIC	JS	JANITORS SINK	STRUCT	STRUCTUR(E),(AL)
CV	CONTROL VALVE, CONSTANT VOLUME	KEC	KITCHEN EQUIPMENT CONTRACTOR	SUCT	SUCTION
CUH	CABINET UNIT HEATER	KW	KILOWATT	T	TEMPERATURE, TIME
CW	CONDENSER WATER, CLOCKWISE	KWH	KILOWATT HOUR	T&P	TEMPERATURE AND PRESSURE
DA	DISCHARGE AIR	LAT	LEAVING AIR TEMPERATURE	TAB	TEST, ADJUST AND BALANCE
dB	DECIBELS	LAV	LAVATORY	TDH	TOTAL DYNAMIC HEAD
DB	DRY BULB TEMPERATURE	LBS	POUNDS	TEMP	TEMPERATURE, TEMPORARY
DDC	DIRECT DIGITAL CONTROL	LF	LINEAR FEET	TONS	TONS OF REFRIGERATION
DF	DRINKING FOUNTAIN	LVR	LOUVER	TOD	TOP OF DUCT
DIA	DIAMETER	LWT	LEAVING WATER TEMPERATURE	TOP	TOP OF PIPE
DMPR	DAMPER	MA	MEDICAL AIR, MIXED AIR	TSP	TOTAL STATIC PRESSURE
DP	DEWPOINT, DIFFERENTIAL PRESSURE	MAT	MATERIAL, MIXED AIR TEMPERATURE	TSTAT	THERMOSTAT
DR	DRAIN	MAU	MAKE UP AIR HANDLING UNIT	TYP	TYPICAL
DSN	DOWNSPOUT NOZZLE	MAV	MANUAL AIR VENT	U	URINAL
DW	DISHWASHER	MAX	MAXIMUM	UH	UNIT HEATER
DWG	DRAWING	MBH	BTU/HR X 1,000	UNO	UNLESS NOTED OTHERWISE
DWV	DRAIN, WASTE, VENT	MC	MECHANICAL CONTRACTOR	V	VENT, VALVE
DX	DIRECT EXPANSION	MCC	MOTOR CONTROL CENTER	VA	VOLT AMPERE
(E) EXIST	EXISTING	MECH	MECHANICAL	VAC	VACUUM
EAT	ENTERING AIR TEMPERATURE	MH	MAN HOLE	VAV	VARIABLE AIR VOLUME
EC	ELECTRICAL CONTRACTOR	MIN	MINIMUM, MINUTE	VD	VOLUME DAMPER
ECON	ECONOMIZER	MVD	MANUAL VOLUME DAMPER	VFD	VARIABLE FREQUENCY DRIVE
EDH	ELECTRIC DUCT HEATER	NA	NOT APPLICABLE	VI	VIBRATION ISOLATOR
EER	ENERGY EFFICIENCY RATIO	NC	NOISE CRITERIA, NORMALLY CLOSED	VOL	VOLUME
EF	EXHAUST FAN	NIC	NOT IN CONTRACT	VP	VELOCITY PRESSURE
EFF	EFFICIENCY	NO	NORMALLY OPEN, NITROUS OXIDE	VSC	VARIABLE SPEED CONTROLLER
EL, ELEV	ELEVATION	NO.	NUMBER	VTR	VENT THROUGH ROOF
EMER	EMERGENCY	NOM	NOMINAL	W	WASTE
ENCL	ENCLOSURE	NR	NOISE REDUCTION	W/	WITH
ESP	EXTERNAL STATIC PRESSURE	NRC	NOISE REDUCTION COEFFICIENT	W/O	WITHOUT
ET	EXPANSION TANK	NTS	NOT TO SCALE	WB	WET BULB
EUH	ELECTRIC UNIT HEATER	OA	OUTSIDE AIR	WC	WATER CLOSET
EVAP	EVAPROAT(E),(ING),(ED),(OR)	OBD	OPPOSED BLADE DAMPER	WCO	WALL CLEAN OUT
EWB	ENTERING WET BULB	OD	OVERFLOW DRAIN, OUTSIDE DIAMETER	WHA	WATER HAMMER ARRESTOR
EW	ELECTRIC WATER COOLER	OF/CI	OWNER FURN./CONTRACTOR INSTALLED	WT	WEIGHT
EWB	ELECTRIC WATER COOLER	OF/CI	OWNER FURN./CONTRACTOR INSTALLED	WT	WEIGHT
EWH	ELECTRIC WATER HEATER	OF/OI	OWNER FURNISHED/OWNER INSTALLED	YCO	YARD CLEANOUT
EWS	EYE WASH STATION	OS&Y	OPEN SCREW & YOLK		

MECHANICAL LEGEND		
BALL VALVE		DUCT SIZE, (1ST FIGURE, SIDE SHOWN; 2ND FIGURE, OTHER SIDE)
BUTTERFLY VALVE		DIRECTION OF FLOW
GATE VALVE		LINED DUCT
ANGLE GATE VALVE, PLAN VIEW		HIDDEN DUCT
GLOBE VALVE		WYE W/45° ENTRY
PLUG VALVE		TEE W/45° ENTRY
3-WAY VALVE		ELBOW W/TURNING VANES
NON-RISING STEM/OS&Y VALVE ACTUATOR		HELICAL FLEX DUCT
LEVER VALVE ACTUATOR		SUPPLY DUCT SECTION UP/DOWN
ELECTRONIC/PNEUMATIC VALVE ACTUATOR		RETURN DUCT SECTION UP/DOWN
SOLENOID/DIAPHRAGM VALVE ACTUATOR		EXHAUST DUCT SECTION UP/DOWN
CHECK VALVE		SUPPLY DUCT SECTION UP/DOWN
SPRING CHECK VALVE		ROUND BRANCH
BALL VALVE W/HOSE END & CAP		DUCT TRANSITION
PRESSURE REDUCING VALVE		SPIN-IN W/VOLUME DAMPER
REDUCED PRESSURE BACKFLOW PREVENTER		FIRE SMOKE DAMPER
INLINE PUMP		FIRE DAMPER
PRESSURE & TEMPERATURE RELIEF VALVE		SMOKE DAMPER
SQUARE HEAD COCK		MOTORIZED DAMPER
STRAINER, W/BV HOSE END & CAP		GRAVITY BACKDRAFT DAMPER
TEMPERATURE & PRESSURE PLUG		MANUAL VOLUME DAMPER
CIRCUIT SETTER		SIDE/PLAN ACCESS DOOR
AUTOMATIC FLOW CONTROL VALVE		SUPPLY AIR DEVICE
AUTOMATIC/MANUAL AIR VENT		RETURN AIR DEVICE
THERMOMETER/PRESSURE GAGE W/COCK		EXHAUST AIR DEVICE
TEMPERATURE SENSOR		THERMOSTAT/HUMIDISTAT
CONCENTRIC/ECCENTRIC REDUCER		POINT OF CONNECTION/REMOVAL
UNION		KEYED NOTE/REVISION
BUSHING/CAP		WALL SWITCH
ELBOW UP/DOWN		EQUIPMENT CALLOUT
TOP/BOTTOM CONNECTION, 45° OR 90°		FLOOR DRAIN/FLOOR SINK
TEE UP/SIDE/DOWN		VENT
FLOW/PITCH DOWN DIRECTION		COLD WATER
ANCHOR/GUIDE		HOT WATER
EXPANSION JOINT/FLEX CONNECTOR		SANITARY SEWER
FLOOR OR GRADE CLEANOUT, W/CONC PAD		SANITARY SEWER BELOW GRADE
WALL CLEANOUT, HOSE BIBB OR WALL HYDRANT		FIRE SERVICE
		NATURAL GAS

PROJECT NOTES	
1.	ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH, 2006 INTERNATIONAL BUILDING CODE, 2006 INTERNATIONAL MECHANICAL CODE, 2006 INTERNATIONAL PLUMBING CODE, 2006 INTERNATIONAL FUEL GAS CODE, AND 2006 INTERNATIONAL ENERGY CODE, INCLUDING STATE AND LOCAL AMENDMENTS, SUBJECT TO AUTHORITY HAVING JURISDICTION INTERPRETATION.
2.	CLOSELY COORDINATE NEW MECHANICAL AND PLUMBING CONSTRUCTION WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL MEMBERS. DUCTWORK AND PIPE ROUTING IS APPROXIMATE, DIAGRAMMATIC AND IS NOT TO BE SCALED. PROVIDE ALTERNATE ROUTING, OFFSETS AND TRANSITIONS AS REQUIRED FOR COORDINATION OF ALL WORK WITHOUT ADDITIONAL COST.
3.	DO NOT SHUT-OFF/PUT OUT SERVICE ANY SYSTEMS/SERVICES WITHOUT FIRST COORDINATING ALL DOWNTIME WITH THE OWNER'S PERSONNEL.
4.	PROVIDE SEISMIC RESTRAINT FOR ALL MECHANICAL AND PLUMBING EQUIPMENT AND PIPING IN ACCORDANCE WITH 2006 IBC, IMC, AND IPC. SEISMIC DESIGN CATEGORY "D", SITE CLASS "D", SD1=0.593, SDS=1.398, AND SEISMIC OCCUPANCY CATEGORY I.
5.	CONTRACTOR SHALL PROVIDE 1 YEAR STANDARD WARRANTY.
6.	SUBMIT ALL VALVES, FITTINGS, PIPE MATERIALS, INSULATION, AND ACCESSORIES TO BE USED IN PROJECT. SUBMIT ALL EQUIPMENT AND ACCESSORIES LISTED ON MECHANICAL SCHEDULE SHEET. SUBMIT SEVEN COPIES IN 3 RING BINDER TO ARCHITECT FOR REVIEW AND APPROVAL BY ENGINEER. DO NOT PLACE ORDER UNTIL ENGINEER HAS REVIEWED AND APPROVED SUBMITTAL.
7.	RECORD ALL FIELD CHANGES ON RECORD DRAWINGS AND SUBMIT TO ENGINEER DURING PROJECT CLOSE OUT.
8.	INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.
9.	PROJECT ELEVATION IS 5000 FT FOR EQUIPMENT SELECTION.
10.	PROVIDE ALL DUCT IN ACCORDANCE WITH SMACNA STANDARDS FOR 2" WC PRESSURE CLASS. SEAL ALL TRANSVERSE AND LONGITUDINAL SEAMS AND JOINTS EXCEPT FOR WELDED OR LOCKING-TYPE LONGITUDINAL JOINTS.
11.	INSULATE ALL EXHAUST DUCT BELOW ROOF WITH 1-1/2" THICK 0.75 LBS/CF FIBERGLASS DUCT WRAP. TRIM AND SEAL JOINTS.
12.	PROVIDE TEST AND BALANCE REPORT TO ENGINEER FOR REVIEW AND APPROVAL.
13.	DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
14.	PROVIDE ISOLATION VALVES SERVING EACH PIECE OF EQUIPMENT.
15.	DISINFECT NEW DOMESTIC WATER PIPING. SUBMIT DISINFECTION REPORT TO ENGINEER FOR REVIEW.
16.	ALL WASTE AND VENT IS 2" UNLESS OTHERWISE NOTED.
17.	ALL WASTE AND VENT PIPE SHALL BE SERVICE WEIGHT CAST IRON, SCHEDULE 40 ABS, OR SCHEDULE 40 PVC.
18.	ALL WATER PIPE SHALL BE TYPE "L" COPPER.
19.	T-DRILL FITTINGS SHALL NOT BE USED IN THIS PROJECT.
20.	ALL "BRANCH" HOT AND COLD WATER LINES FEEDING ONE OR TWO SINKS ARE 1/2". DROP IN WALL AND DISTRIBUTE TO SINKS AS REQ'D. PROVIDE INDIVIDUAL STOPS FOR EACH SINK.
21.	ALL NATURAL GAS PIPE SHALL BE SCHEDULE 40 STEEL PIPE WITH SCREWED FITTINGS FOR 2 LB SERVICE. CONTRACTOR MAY USE CSST DOWNSTREAM OF REGULATORS FOR FINAL EQUIPMENT CONNECTION.
22.	PROVIDE "DIRT LEG" AHEAD OF EACH PIECE OF FUEL FIRED EQUIPMENT.
23.	PROVIDE TRAP PRIMERS AND CONNECT TO ALL FLOOR DRAINS, ALL FLOOR SINKS, AND ALL STANDPIPES THAT DO NOT HAVE A RELIABLE SOURCE TO MAINTAIN TRAP SEAL.
SHEET LIST	
MH001 - MECHANICAL LEGENDS AND NOTES	
MH101 - MECHANICAL FLOOR PLAN	
MH501 - MECHANICAL DETAILS	
MH601 - MECHANICAL SCHEDULES	
PP101 - PLUMBING FLOOR PLAN	
PP401 - ENLARGED PLUMBING FLOOR PLANS	

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UTAH DIVISION OF  
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4110 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

PROJECT NO: 20080101  
CAD DWG FILE:  
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MECHANICAL  
LEGENDS  
AND NOTES

MH001

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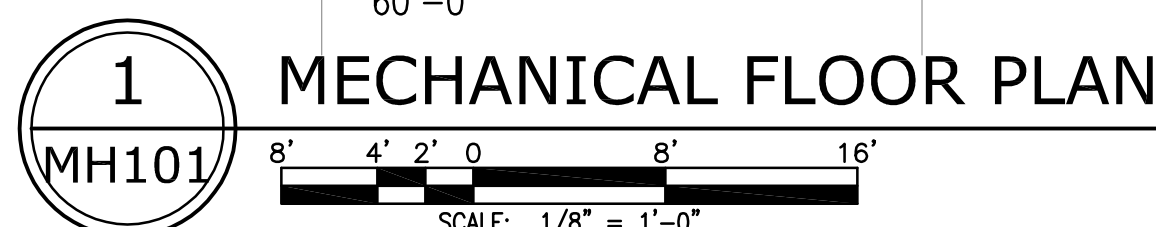
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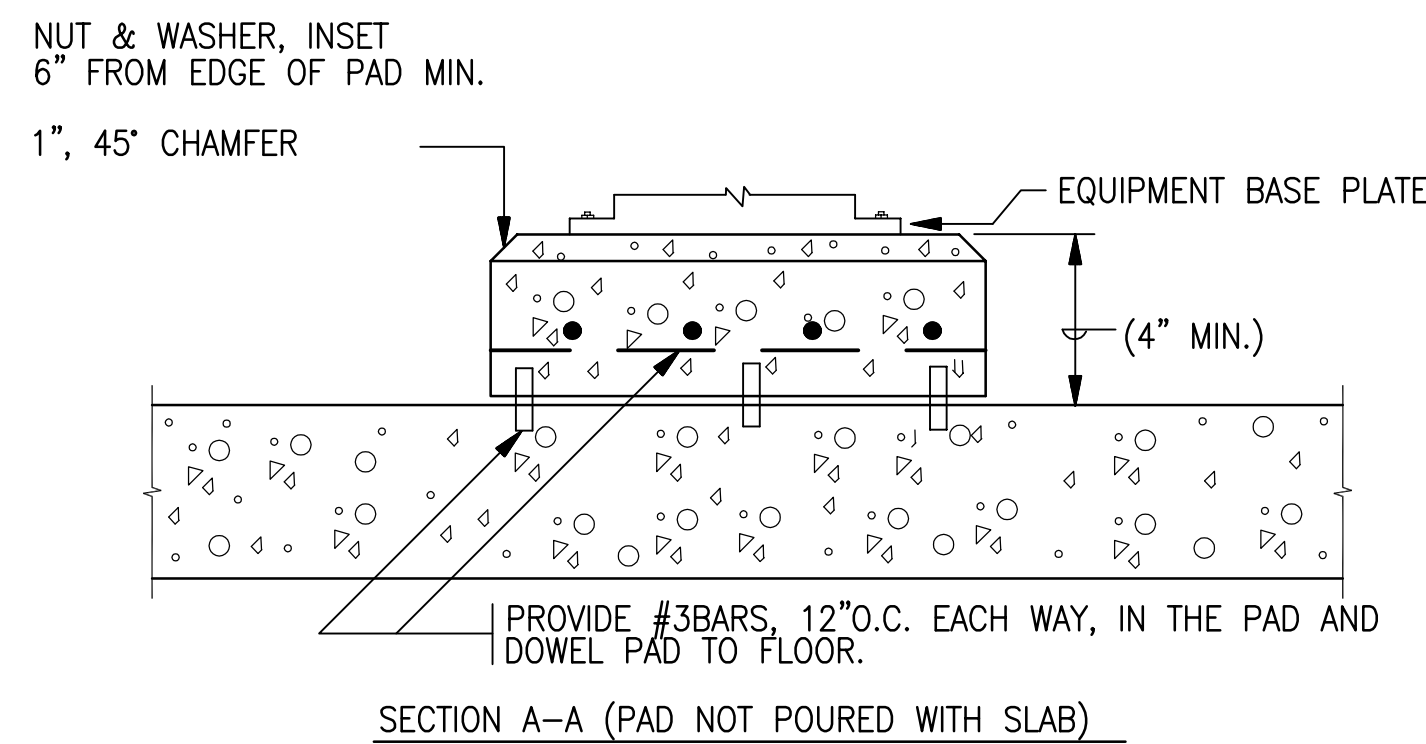
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# MH101

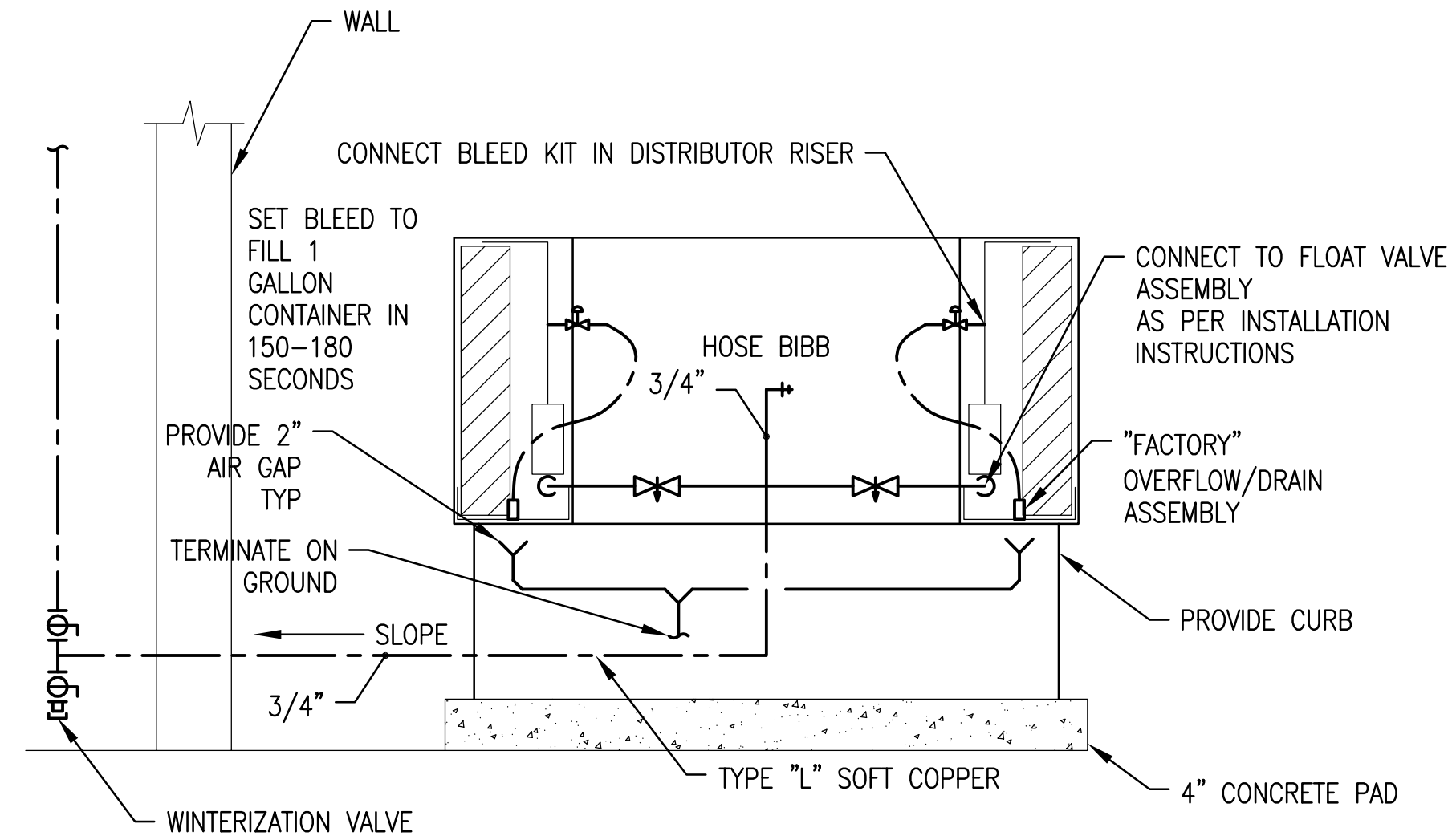
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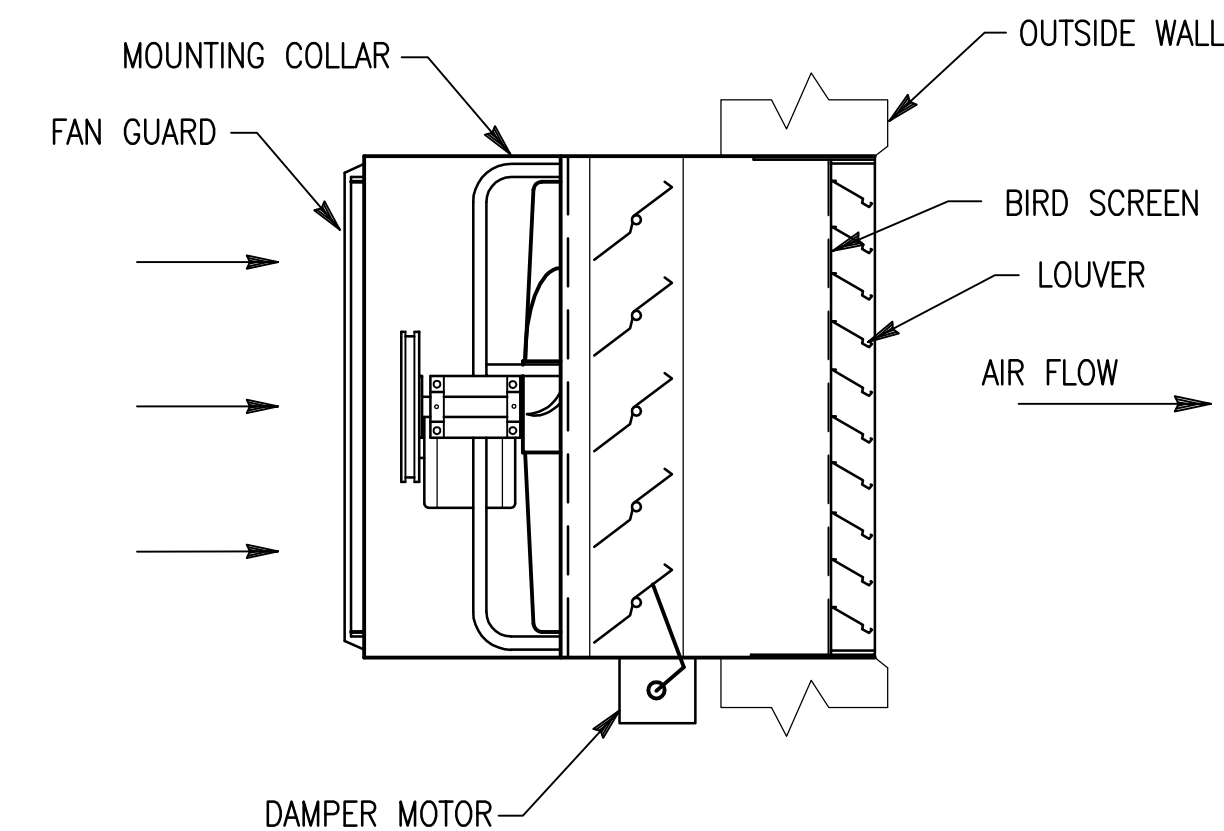
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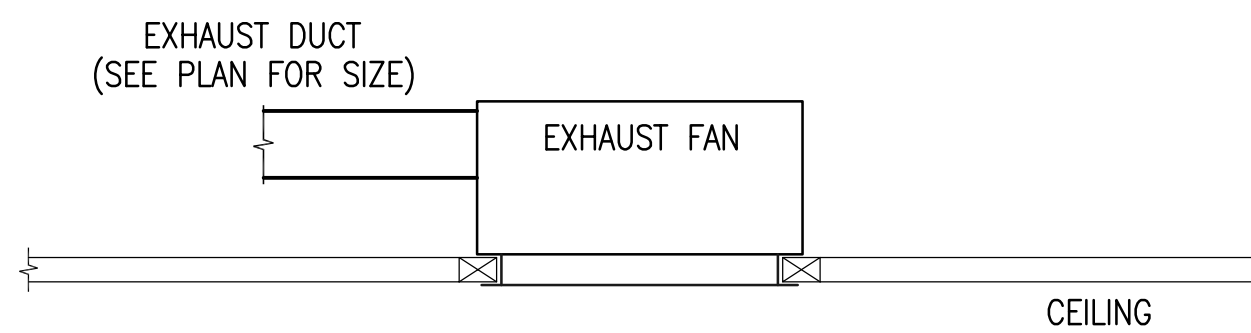
1 HOUSEKEEPING PAD



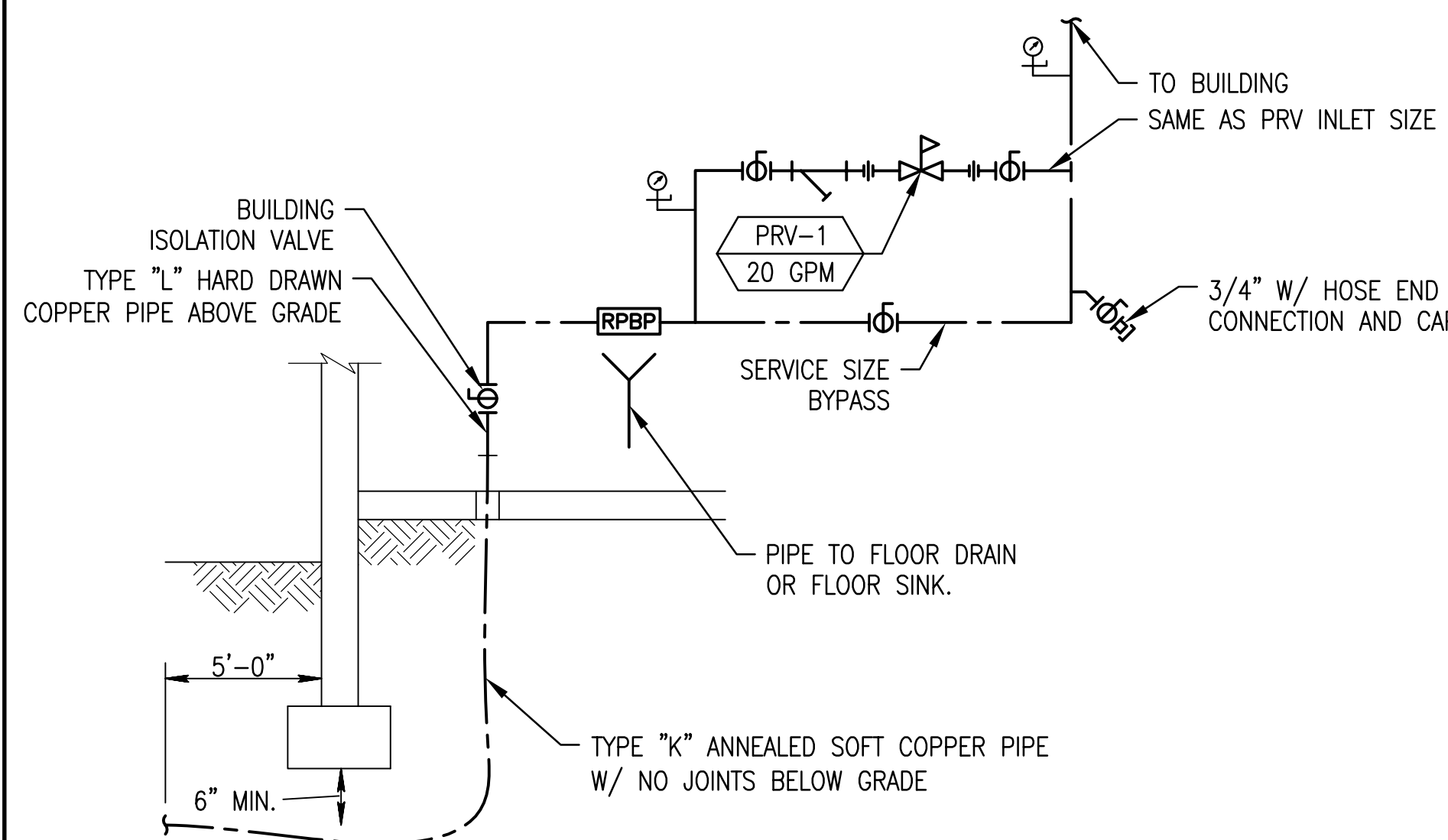
2 EVAPORATIVE COOLER DETAIL



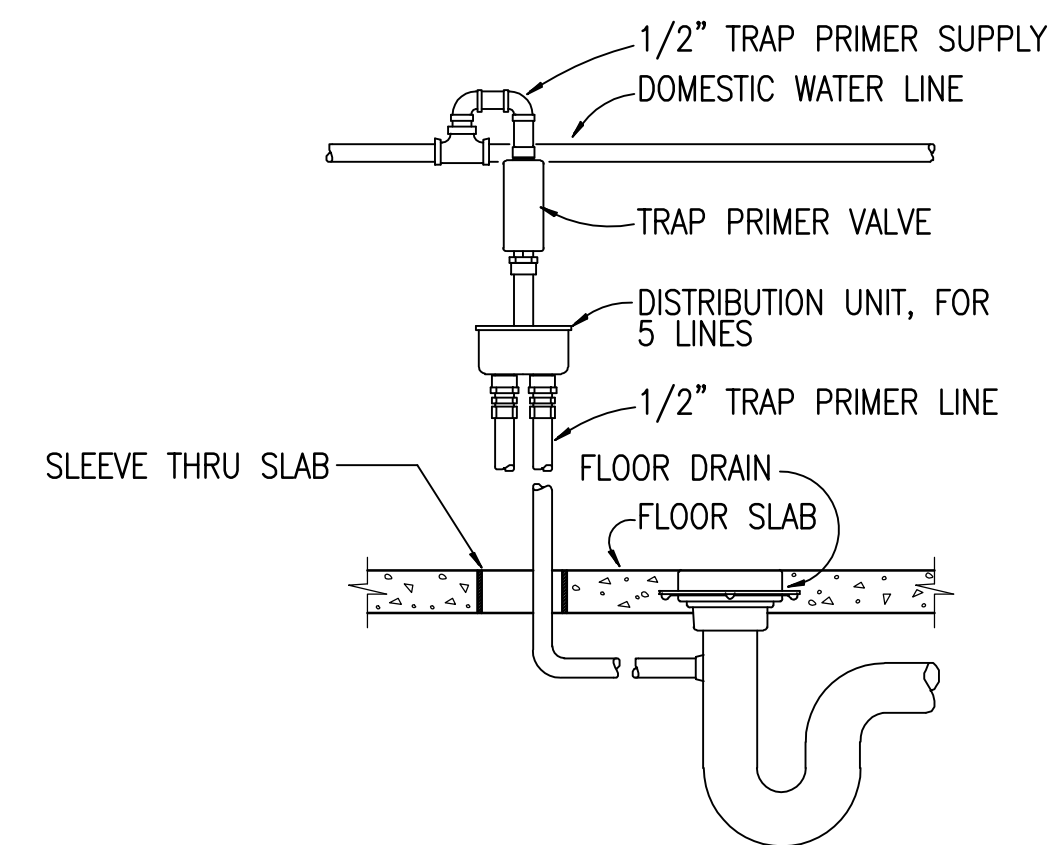
3 PROPELLER WALL EXHAUST FAN



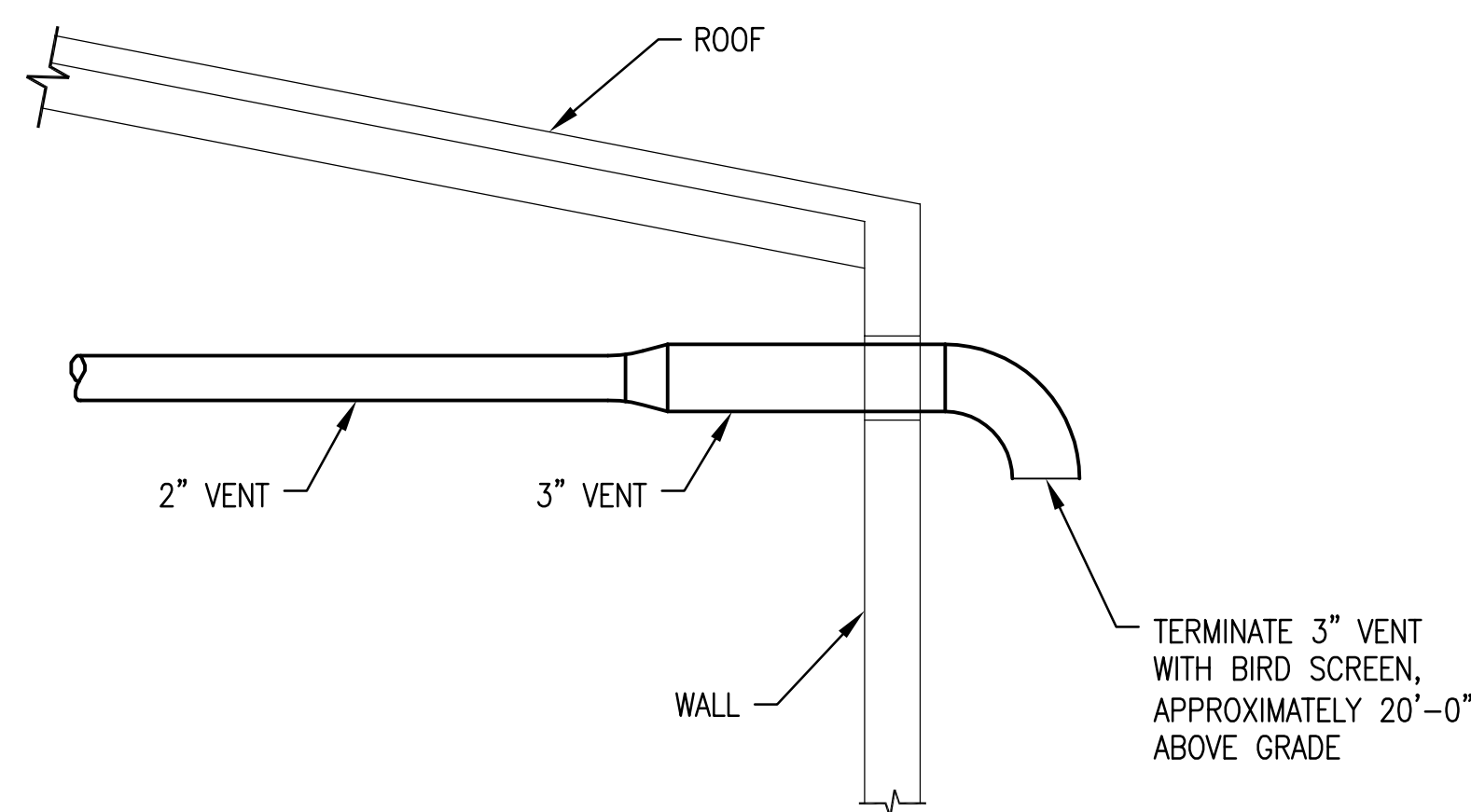
4 CEILING EXHAUST FAN



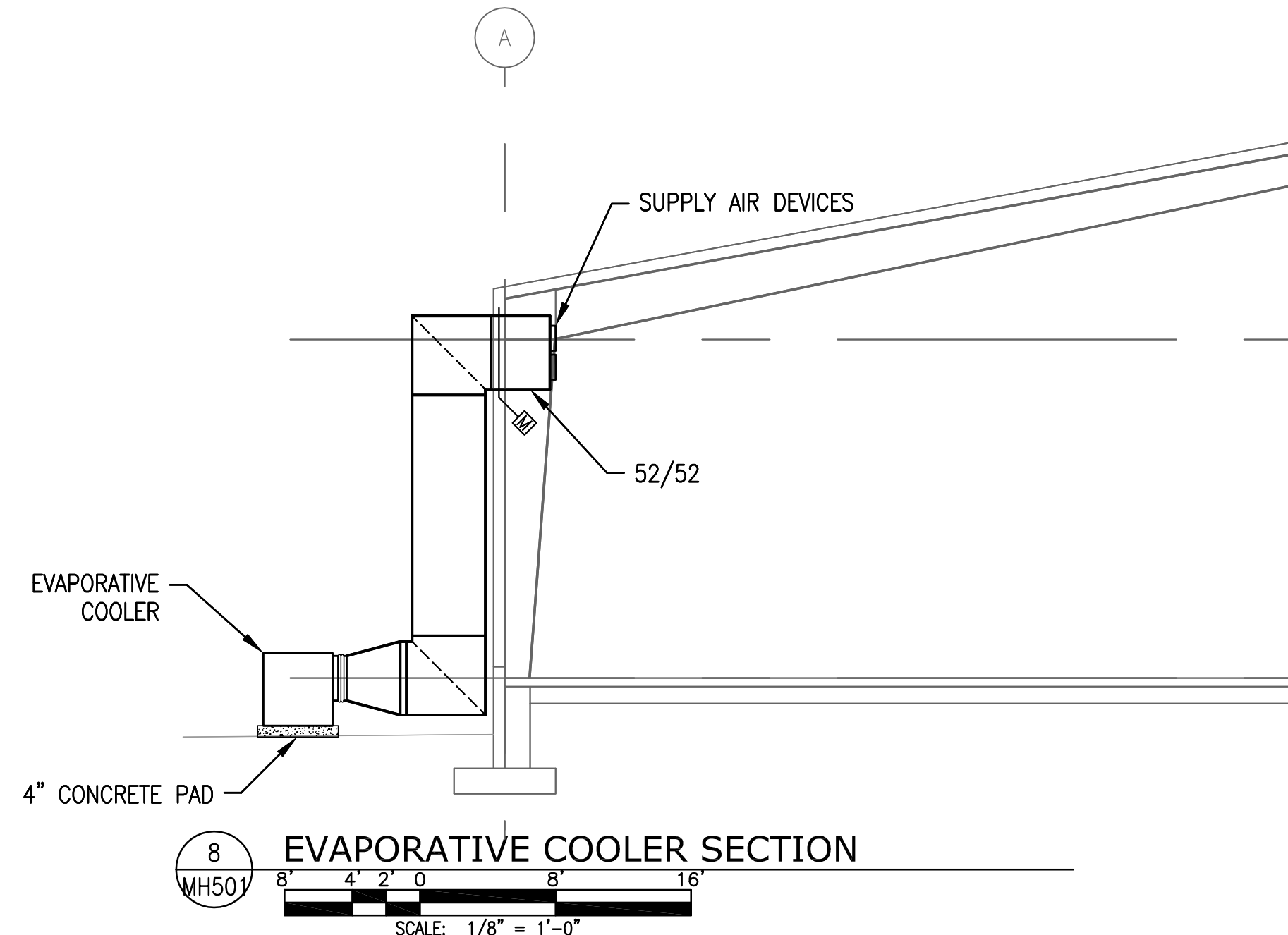
5 WATER SERVICE ENTRY/PRV STATION



6 TRAP PRIMER



7 VENT TERMINATION



8 EVAPORATIVE COOLER SECTION

9 NOT USED



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MECHANICAL  
DETAILS

**MH501**  
SHEET OF



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ELECTRIC BASEBOARD HEATER (EBB) <div>EBB KW</div>									
MARK	AREA SERVED	WATTS	VOLTS/ PHASE	L (IN)	D (IN)	H (IN)	WT (LBS)	MANUFACTURER MODEL	REMARKS
EBB-NE	NORTHEAST RESTROOM	400	277/ 1ø	24	3	7	5	QMARK 2572W	W/ BASEBOARD THERMOSTAT
EBB-SW	SOUTHWEST RESTROOM	400	277/ 1ø	24	3	7	5	QMARK 2572W	W/ BASEBOARD THERMOSTAT
EBB-STO	STORAGE	400	277/ 1ø	24	3	7	5	QMARK 2572W	W/ BASEBOARD THERMOSTAT
EBB-UTL	UTILITY	400	277/ 1ø	24	3	7	5	QMARK 2572W	W/ BASEBOARD THERMOSTAT

PLUMBING FIXTURE SCHEDULE <div>FIXTURE</div>									
MARK	FIXTURE	ROUGH IN SIZE					MANUFACTURER MODEL	REMARKS	
		WASTE IN	TRAP IN	VENT IN	HW IN	CW IN			
WC-1	WATER CLOSET, FLOOR MOUNTED, TANK TYPE, ADA COMPLIANT	3	2	2	N/A	1/2	TOTO "DRAKE" CST744SL	VITREOUS CHINA, 1.6 GPF, 3" FLUSH VALVE, 17" FLOOR TO RIM, 12" ROUGH IN, ELONGATED BOWL, W/ BEMIS 1955C OPEN FRONT SEAT LESS COVER.	
U-1	URINAL, ADA COMPLIANT, WALL MOUNTED, W/ MANUAL FLUSH VALVE	2	2	2	N/A	3/4	AMERICAN STANDARD "WASHBROOK" W/ ZURN Z6003 FLUSH VALVE	VITREOUS CHINA, 1.0 GPF 19" W X 27" H X 14" D, WASHOUT FLUSH ACTION, LOW CONSUMPTION URINAL WITH 3/4" MANUAL FLUSH VALVE AND WALL CARRIER. SEE ARCHITECTURAL ELEVATIONS FOR MOUNTING ELEVATION.	
LAV-1	LAVATORY, WALL-HUNG ADA COMPLIANT, W/ SINGLE CONTROL FAUCET	2	1 1/4	2	1/2	1/2	AMERICAN STANDARD "LUCERNE" LAVATORY W/ "SEVA" FAUCET	VITREOUS CHINA 18"x21" WALL MOUNTED LAVATORY W/ FLOOR MOUNTED CONCEALED ARM CARRIER, HOLES ON 4" CENTERS, GRID STRAINER, CHROMED ANGLE STOPS, CHROMED BRASS SUPPLIES, AND CHROMED BRASS "p" TRAP, AND ADA COMPLIANT INSULATION KIT.	
SS-1	SERVICE SINK, ENAMELED CAST IRON	3	3	2	1/2	1/2	AMERICAN STANDARD FLORWELL W/FAUCET 8344.112	28"x28"x13" DEEP ENAMELED CAST IRON SERVICE SINK W/ FLAT GRID DRAIN, REMOVABLE VINYL-COATED RIM GUARD, HOSE AND HOSE BRACKET. POLISHED CHROME FAUCET W/TOP BRACE, STOPS AND VACUUM BREAKER.	
WH-1	FREEZELESS WALL HYDRANT	N/A	N/A	N/A	N/A	3/4	ZURN "ECOLOTROL" Z1315	EXPOSED, FREEZELESS WALL HYDRANT W/ OPERATING KEY AND VACUUM BREAKER.	
TP	TRAP PRIMER	N/A	N/A	N/A	N/A	1/2	PPP 500	TRAP PRIMER.	
FD-1	FLOOR DRAIN	X	X	X/2 2" MIN	N/A	N/A	ZURN FD-2321-NH"x" "X" INDICATED ON DRAWINGS	CAST IRON BODY, ADJUSTABLE NICKEL BRONZE STRAINER ASSEMBLY, MEMBRANE CLAMP, WEEP HOLES, AND TRAP PRIMER CONNECTION.	
FS-1	FLOOR SINK 6" DEEP	2	2	2	N/A	N/A	ZURN FD-2375-Y	CAST IRON, 12"x12"x6" DEEP, 1/2 GRATE, WHITE ACID RESISTING INTERIOR, PVC DOME STRAINER, AND SEDIMENT BUCKET.	

EXPANSION TANK SCHEDULE (ET)											ET GAL
MARK	SYSTEM SERVED	TEMP °F	GLYC. %	TANK VOL. GAL	ACCEPT. VOL. GAL	PRE- CHARGE PSI	DIMENSIONS			MANUFACTURER MODEL	REMARKS
							DIA. IN	H IN	WT LBS		
ET-1	URINAL	60	POTABLE	6.4	3.2	65	12	16	55	AMTROL THERM-X-TROL ST-12-C	W/ POTABLE WATER BLADDER

PRV SCHEDULE (PRV) <div>PRV GPM</div>					
MARK	SIZE	GPM	PD PSI	SETTING	MANUFACTURER MODEL
PRV-1	3/4	20	10	65	WATTS 223S

INFRARED RADIANT HEATER (IRH) <div>IRH MBH</div>									
MARK	BURNER			DIMENSIONS			MANUFACTURER MODEL	REMARKS	
	INPUT MBH	VOLT/ PHASE	RLA	TUBE DIA IN	FLUE DIA IN	WT LBS			
IRH-1	100	120/ 1ø	1.0	4	4	180	ROBERTS-GORDON VANTAGE II / CTH2-100	NOTE 1, SIDEWALL TERMINATION	
IRH-2	125	120/ 1ø	1.0	4	4	24 6	ROBERTS-GORDON VANTAGE II / CTH2-150	NOTE 1, SIDEWALL TERMINATION	
IRH-3	150	120/ 1ø	1.0	4	4	28 0	ROBERTS-GORDON VANTAGE II / CTH2-150	NOTE 1, SIDEWALL TERMINATION	
IRH-4	150	120/ 1ø	1.0	4	4	28 0	ROBERTS-GORDON VANTAGE II / CTH2-150	NOTE 1, SIDEWALL TERMINATION	
IRH-5	150	120/ 1ø	1.0	4	4	28 0	ROBERTS-GORDON VANTAGE II / CTH2-150	NOTE 1, SIDEWALL TERMINATION	
IRH-6	150	120/ 1ø	1.0	4	4	28 0	ROBERTS-GORDON VANTAGE II / CTH2-150	NOTE 1, SIDEWALL TERMINATION	
IRH-7	150	120/ 1ø	1.0	4	4	28 0	ROBERTS-GORDON VANTAGE II / CTH2-150	NOTE 1, SIDEWALL TERMINATION	
IRH-8	150	120/ 1ø	1.0	4	4	28 0	ROBERTS-GORDON VANTAGE II / CTH2-150	NOTE 1, SIDEWALL TERMINATION	

NOTE 1: NATURAL GAS, PARABOLIC ALUMINUM REFLECTORS, ALUMINIZED TUBING, HANGERS, ACCESSORIES, HOT SURFACE IGNITION, "FACTORY" CONTROLS, AND CAST IRON BURNER.

EVAPORATIVE COOLER SCHEDULE (EVAP)																<div>EVAP CFM</div>	
MARK	AREA SERVED	TYPE	CFM	SP S.L IN WC	FAN RPM	DAMPER	FAN MOTOR			PUMP MOTOR		DIMENSIONS				MANUFACTURER MODEL	REMARKS
							RPM	HP	VOLT/ PHASE	VOLT/ PHASE	HP	W (IN)	D (IN)	H (IN)	WT (LBS)		
EVAP-1	COMMISS.	SINGLE INLET SIDE DISCHARGE	6,400	0.5	424	MOTORIZED	1750	1.5	460/ 3ø	120/ 1ø	1/2	49	70	52	615	MASTERCool US960 W/ UM120	W/ 12" MEDIA AND MOTORIZED DAMPER, PROVIDE "FACTORY" CONTROL SWITCH
EVAP-2	WAREHOUSE	DUAL INLET SIDE DISCHARGE	17,500	0.5	443	MOTORIZED	1750	7.5	460/ 3ø	120/ 1ø	1/2	91	49	52	988	MASTERCool US980 W/ UM120	W/ 12" MEDIA AND MOTORIZED DAMPER, PROVIDE "FACTORY" CONTROL SWITCH
EVAP-3	WAREHOUSE	DUAL INLET SIDE DISCHARGE	17,500	0.5	443	MOTORIZED	1750	7.5	460/ 3ø	120/ 1ø	1/2	91	49	52	988	MASTERCool US980 W/ UM120	W/ 12" MEDIA AND MOTORIZED DAMPER, PROVIDE "FACTORY" CONTROL SWITCH

EXHAUST FAN SCHEDULE (EF) <div>EF CFM</div>														
MARK	AREA SERVED	TYPE	CFM	ESP IN WC	FAN RPM	MOTOR			SONES	DAMPER	CONTROL	OPENING SIZE IN	MANUFACTURER MODEL	REMARKS
						BHP	HP	VOLT/ PHASE						
EF-1	WAREHOUSE	WALL-PAC	8,750	0.125	492	0.687	3/4	460/ 3ø	14.8	MOTORIZED	INTERLOCK W/ EVAP-2	49.5/49.5	COOK APB 42P6B	WALL-PAC W/ WALL SLEEVE AND OSHA GUARD
EF-2	WAREHOUSE	WALL-PAC	8,750	0.125	492	0.687	3/4	460/ 3ø	14.8	MOTORIZED	INTERLOCK W/ EVAP-2	49.5/49.5	COOK APB 42P6B	WALL-PAC W/ WALL SLEEVE AND OSHA GUARD
EF-3	WAREHOUSE	WALL-PAC	8,750	0.125	492	0.687	3/4	460/ 3ø	14.8	MOTORIZED	INTERLOCK W/ EVAP-3	49.5/49.5	COOK APB 42P6B	WALL-PAC W/ WALL SLEEVE AND OSHA GUARD
EF-4	WAREHOUSE	WALL-PAC	8,750	0.125	492	0.687	3/4	460/ 3ø	14.8	MOTORIZED	INTERLOCK W/ EVAP-3	49.5/49.5	COOK APB 42P6B	WALL-PAC W/ WALL SLEEVE AND OSHA GUARD
EF-COM	COMMISS.	WALL-PAC	6,400	0.125	778	0.59	3/4	460/ 3ø	16.6	MOTORIZED	INTERLOCK W/ EVAP-1	37/37	COOK APB 30P6B	WALL-PAC W/ WALL SLEEVE AND OSHA GUARD
EF-RRNE	NORTHEAST RESTROOM	CABINET	150	0.375	1200	94.1 WATTS	N/A	120/ 1ø	3.0	GRAVITY	LIGHTS	15/13	COOK GEMC GC-164	W/ ELECTRONIC SPEED CONTROL
EF-RRSW	SOUTHWEST RESTROOM	CABINET	150	0.375	1200	94.1 WATTS	N/A	120/ 1ø	3.0	GRAVITY	LIGHTS	15/13	COOK GEMC GC-164	W/ ELECTRONIC SPEED CONTROL

INSTANTANEOUS ELECTRIC WATER HEATER SCHEDULE (IWH)													<div>IWH</div> <div>KW</div>
MARK	AREA SERVED	INPUT KW	FLOW GPM	TEMP RISE °F	OPER TEMP °F	DIMENSIONS				ELECT.		MANUFACTURER MODEL	REMARKS
						W IN	D IN	H IN	WT LBS	VOLT/ PHASE	AMPS		
IWH-RRN	NORTHEAST RESTROOM	6.0	0.75	55	110	5	3	11	3	277/ 1ø	22	EEMAX CONTROLLED" SP60	
IWH-RRS	SOUTHWEST RESTROOM	6.0	0.75	55	110	5	3	11	3	277/ 1ø	22	EEMAX CONTROLLED" SP60	
IWH-SS	SERVICE SINK	10.0	1.0	68	120	5	3	11	3	277/ 1ø	36	EEMAX CONTROLLED" SP100	

AIR DEVICE SCHEDULE <div>DEVICE CFM/NCK</div>											
MARK	TYPE & DUTY	FACE SIZE W X H	NECK SIZE W X H	CEILING TYPE	MAX. CFM	MAX. T.P. (IN WC)	MAX. NC LEVEL	MIN T50 THROW (FT)	PATTERN	MANUFACTURER MODEL	REMARKS
S-1	DOUBLE DEFLECTION INDUSTRIAL GRILLE	32/32	30/30	DUCT	6,400	0.12	35	140	ADJ.	NAILOR 81DH	
S-2	DOUBLE DEFLECTION INDUSTRIAL GRILLE	52/26	50/24	DUCT	8,750	0.13	38	158	ADJ.	NAILOR 81DH	

PACKAGED TERMINAL AIR CONDITIONER (PTAC)														<div>PTAC NOM. TON</div>	
MARK	AREA SERVED	NOM. TONS	EER	COOLING MBH	HEATING MBH	HEATER KW	ELECTRICAL			DIMENSIONS				MANUFACTURER MODEL	REMARKS
							VOLT/ PHASE	MCA	MF S	L IN	W IN	H IN	WT LBS		
PTAC-N	NORTH OFFICE	1.0	11.1	12.1	10.8	5.0	277/ 1ø	24.3	25	42	22	16	140	CARRIER 52PQ-5124	NOTE 1
PTAC-S1	SOUTH OFFICE	1.0	11.1	12.1	10.8	5.0	277/ 1ø	24.3	25	42	22	16	140	CARRIER 52PQ-5124	NOTE 1
PTAC-S2	SOUTH OFFICE	1.0	11.1	12.1	10.8	5.0	277/ 1ø	24.3	25	42	22	16	140	CARRIER 52PQ-5124	NOTE 1

NOTE 1: W/ WALL SLEEVE AND UNIT MOUNTED THERMOSTAT, ARCHITECT TO SELECT EXTERIOR GRILLE COLOR FROM MANUFACTURERS STANDARD COLOR PALETTE.



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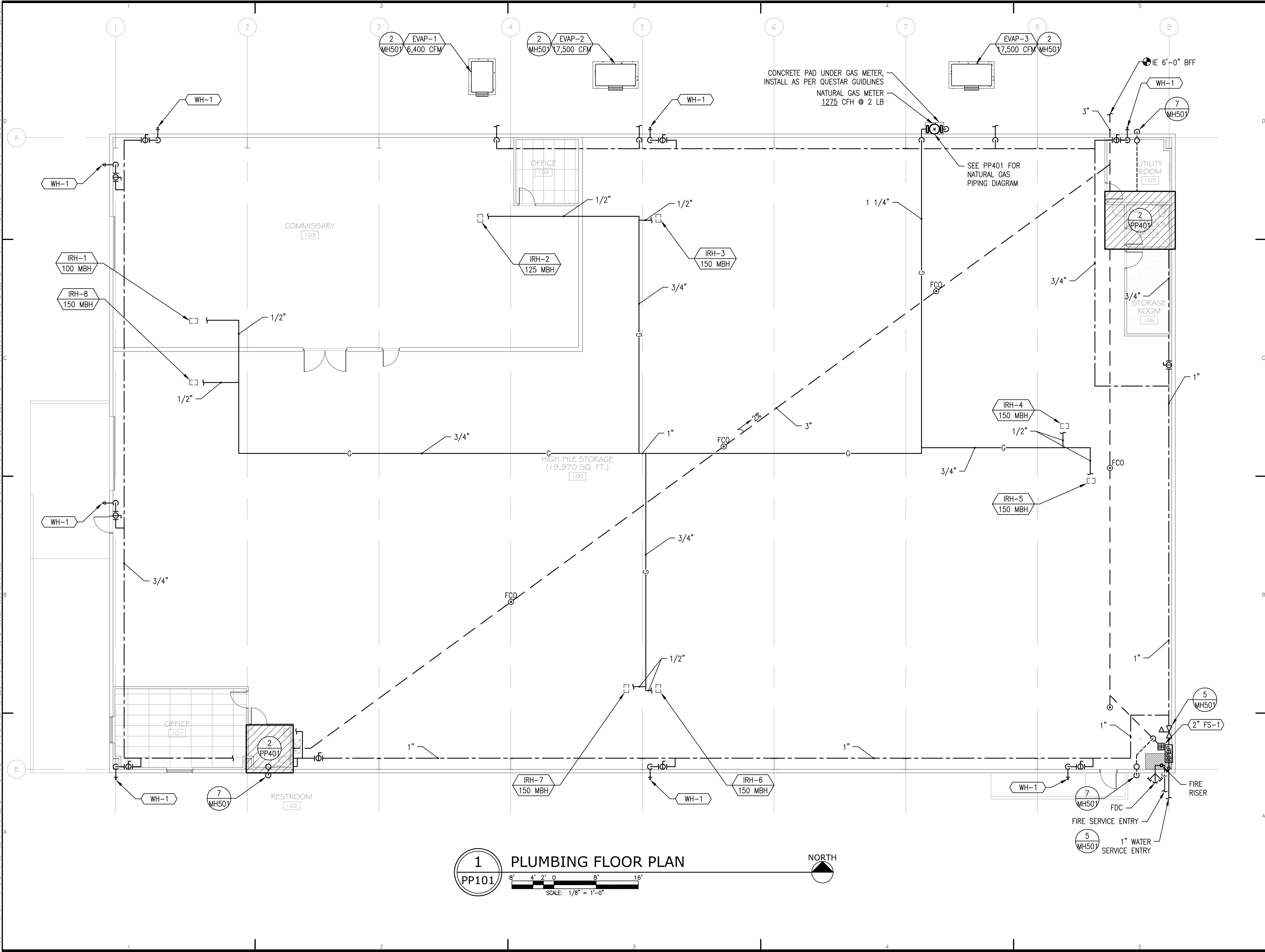
MECHANICAL  
SCHEDULES


**MH601**

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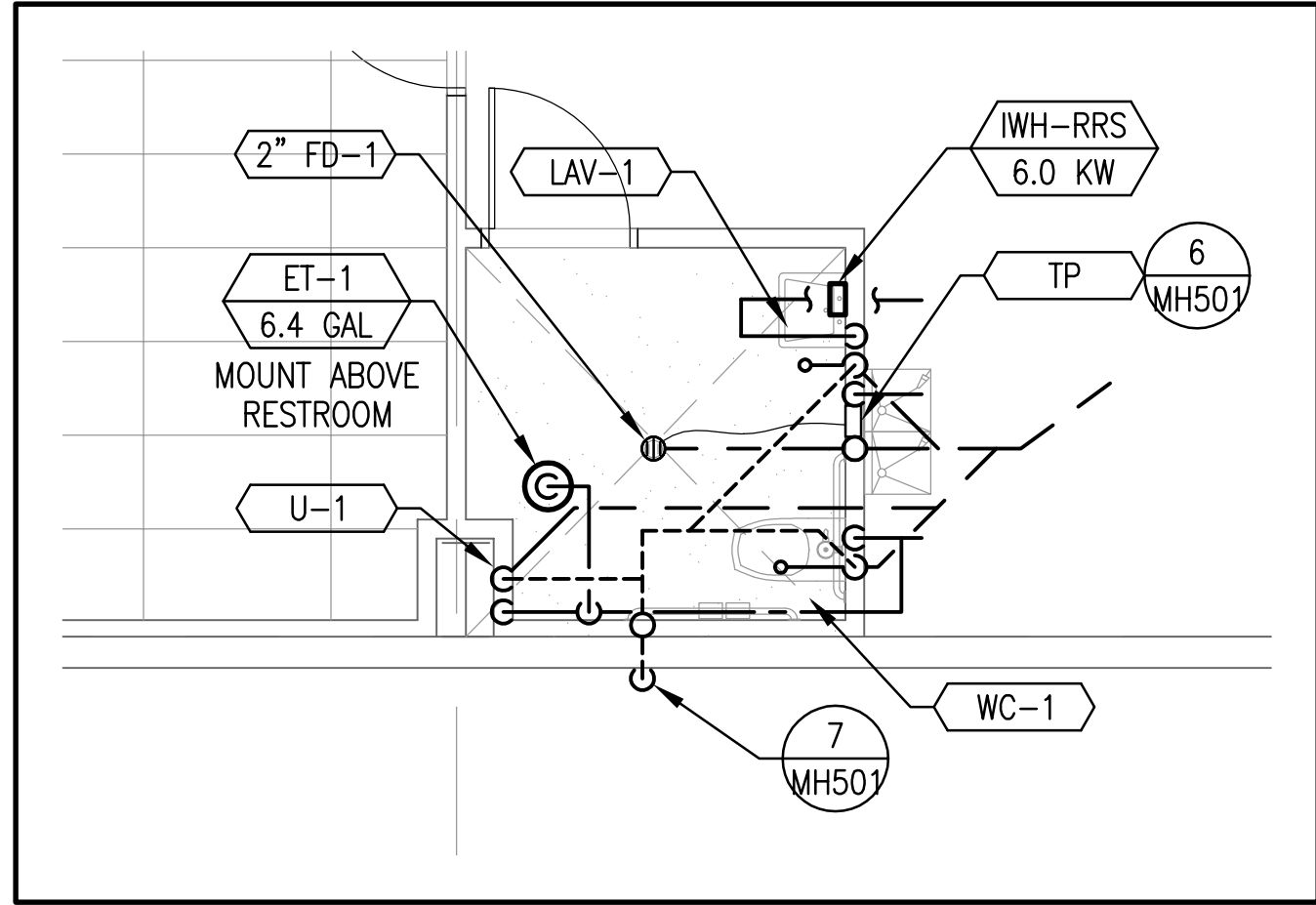
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**PLUMBING  
FLOOR PLAN**

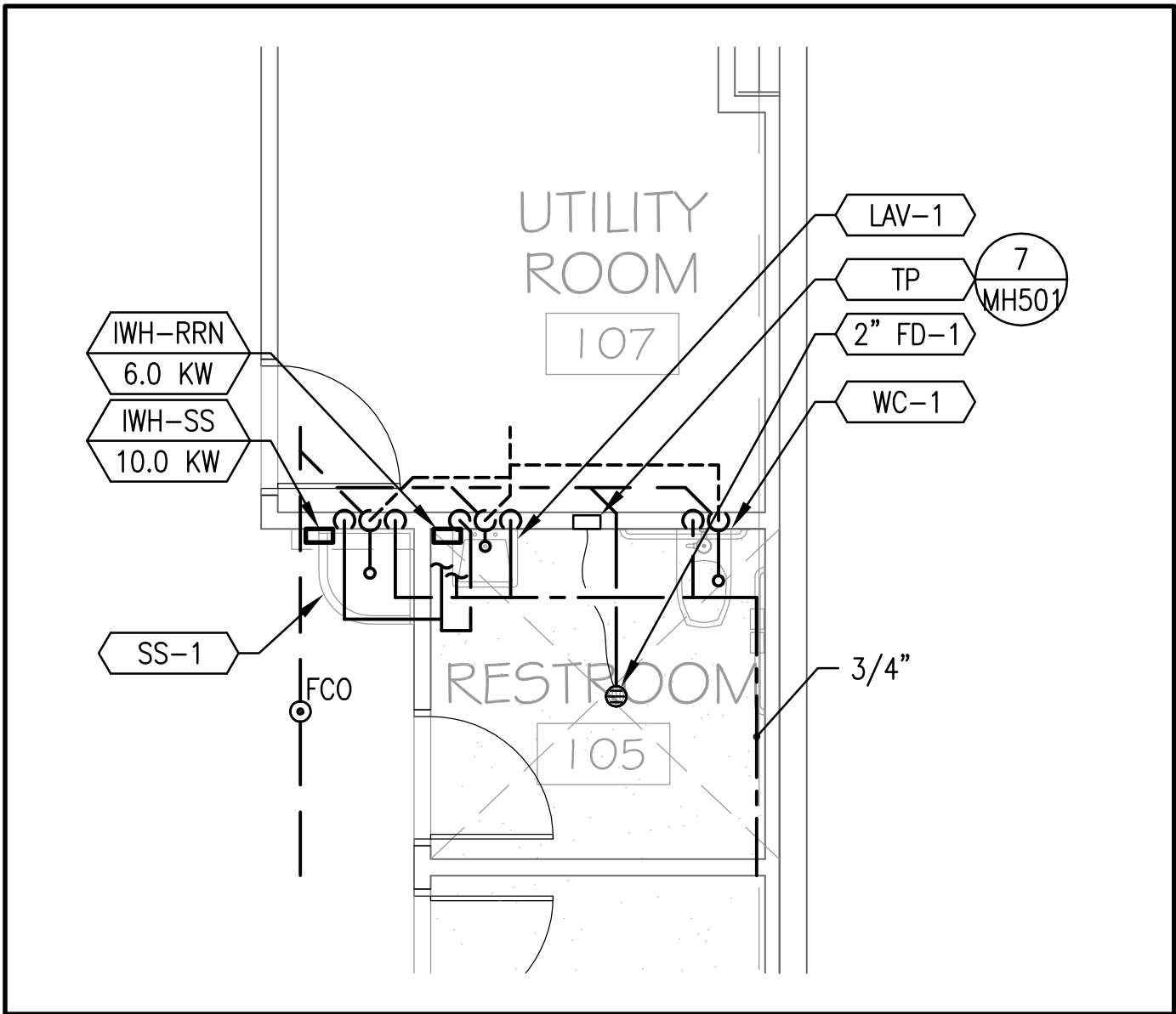
**PP101**

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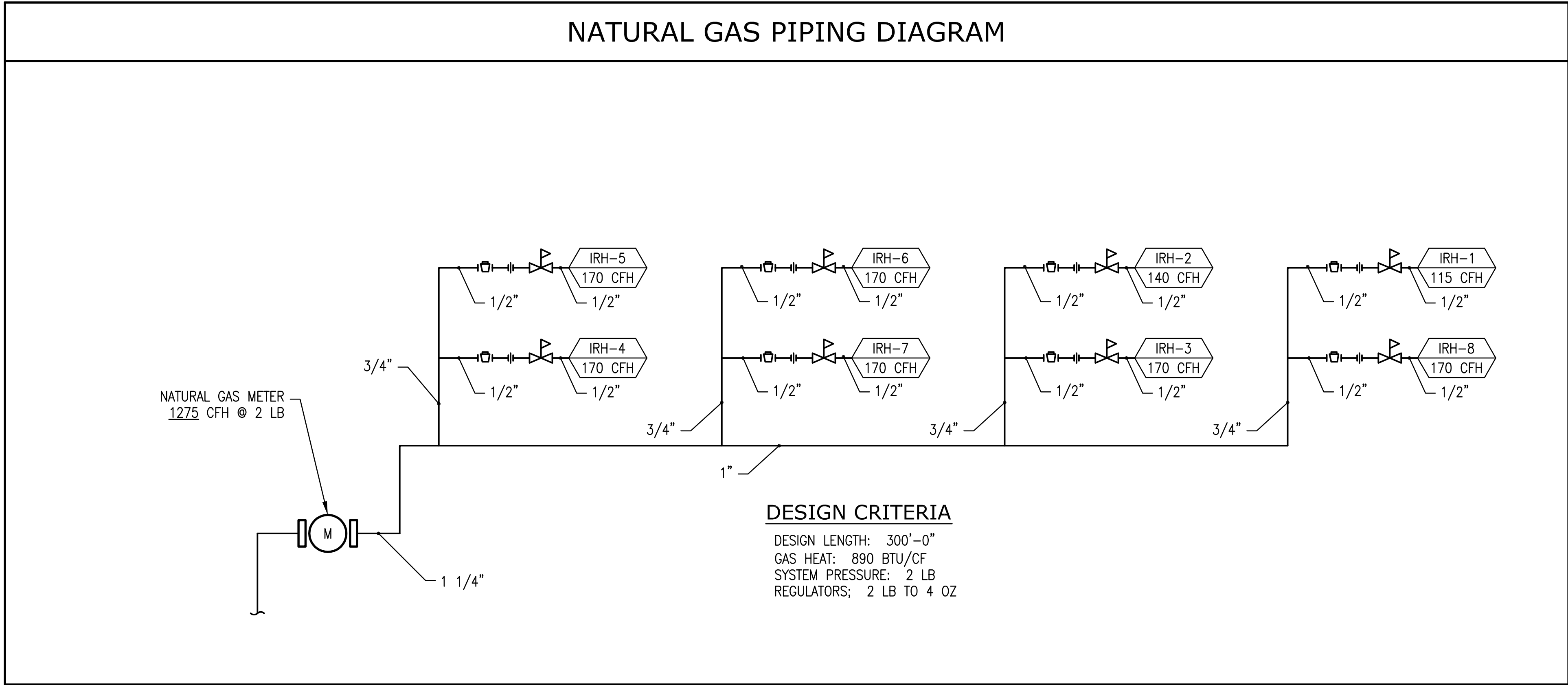
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1 ENLARGED PLUMBING FLOOR PLANS  
PP401  
8' 4' 2' 0' 8' 16'  
SCALE: 1/8" = 1'-0" NORTH



2 ENLARGED PLUMBING FLOOR PLANS  
PP401  
8' 4' 2' 0' 8' 16'  
SCALE: 1/8" = 1'-0" NORTH



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**ENLARGED  
PLUMBING  
FLOOR PLANS**

**PP401**

SHEET OF



WIRING DEVICE SYMBOLS			
SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	SINGLE-POLE TOGGLE SWITCH	+48"	SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.
	SINGLE-POLE TOGGLE SWITCH	+48"	
	DOUBLE-POLE TOGGLE SWITCH	+48"	
	THREE-WAY TOGGLE SWITCH	+48"	
	FOUR-WAY TOGGLE SWITCH	+48"	
	KEY-OPERATED SINGLE-POLE TOGGLE SWITCH	+48"	
	SINGLE-POLE TOGGLE SWITCH WITH PILOT LIGHT	+48"	
	DIMMER SWITCH	+48"	RATE DIMMER SWITCH FOR MAXIMUM POSSIBLE INATAGE
	TIMER SWITCH	+48"	
	(2) SINGLE-POLE TOGGLE SWITCH	+48"	DUAL LEVEL SWITCH OUTBOARD LAMPS SEPARATELY FROM INBOARD LAMPS.
	LOW VOLTAGE MOMENTARY CONTACT SWITCH	+48"	
	3-POSITION MOMENTARY CONTACT SWITCH	+48"	REFER TO DETAIL. UP-ON; CENTER-NEUTRAL; DOWN-OFF
	3-POSITION MAINTAINED CONTACT SWITCH	+48"	UP-ON; CENTER-OFF; DOWN-ON
	OCCUPANCY SENSOR	AS NOTED	CEILING MOUNTED WITH SUBSCRIPT 'C'; WALL-MOUNTED WITH SUBSCRIPT 'W'
	SPLIT-WIRED DUPLEX RECEPTACLE	+18"	
	SIMPLEX RECEPTACLE	+18"	
	DUPLEX RECEPTACLE	+18"	
	FOURPLEX RECEPTACLE	+18"	
	125/250V RECEPTACLE	+18"	RANGE -- NEMA 14-50R DRYER -- NEMA 14-30R
	GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE	+18"	
	GROUND FAULT CIRCUIT INTERRUPTER FOURPLEX RECEPTACLE	+18"	
	EMERGENCY DUPLEX RECEPTACLE	+18"	
	EMERGENCY FOURPLEX RECEPTACLE	+18"	
	MULTI-OUTLET ASSEMBLY	4" ABOVE BACKSPLASH	
	POWER / TELEPHONE POLE	FLOOR/CEILING	
	CORD DROP WITH DUPLEX RECEPTACLE	+18"	REFER TO DETAIL
	SPECIAL PURPOSE OUTLET	+18"	SUBSCRIPT IN PARENTHESIS INDICATES NEMA CONFIGURATION IF SHOWN. REFER TO DRAWINGS AND/OR EQUIPMENT SCHEDULES. CONFIRM EXACT CONFIGURATION WITH OWNER PRIOR TO INSTALLATION.

GEAR AND CONTROL SYMBOLS			
SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	MANUAL STARTER WITH THERMAL OVERLOAD(S)	AT EQUIPMENT	
	ELECTRIC MOTOR		
	NON-FUSED DISCONNECT SWITCH	+60"	
	FUSED DISCONNECT SWITCH	+60"	
	CIRCUIT BREAKER AND ENCLOSURE	+60"	
	MAGNETIC STARTER	+60"	
	COMBINATION MAGNETIC STARTER / NON-FUSED DISCONNECT	+60"	
	COMBINATION MAGNETIC STARTER / FUSED DISCONNECT	+60"	
	COMB. MAGNETIC STARTER / MOTOR CIRCUIT PROTECTOR (MCP)	+60"	
	COMB. VARIABLE FREQUENCY DRIVE / MOTOR CIRCUIT PROTECTOR (MCP)	FLOOR OR WALL AS SPECIFIED	TOP AT +12" IF WALL MOUNTED
	REDUCED VOLTAGE STARTER	FLOOR OR WALL AS SPECIFIED	TOP AT +12" IF WALL MOUNTED
	LOAD CENTER (SURFACE-MOUNTED)	TOP AT +12"	14"W X 3"D
	LOAD CENTER (FLUSH-MOUNTED)	TOP AT +12"	14"W X 3"D
	LIGHTING AND APPLIANCE PANELBOARD (SURFACE-MOUNTED)	TOP AT +12"	20"W X 6"D
	LIGHTING AND APPLIANCE PANELBOARD (FLUSH-MOUNTED)	TOP AT +12"	20"W X 6"D
	POWER DISTRIBUTION PANELBOARD	WALL	THESE SYMBOLS ARE GENERAL IN NATURE AND MAY VARY IN SIZE AND SHAPE TO SUIT APPLICATION. CROSS HATCHING INDICATES "MAIN PANELBOARD OR "SUBPANELBOARD". NAME IS INDICATED IN SEMI-QUOTES (I.E. "L2A", "MCP")
	SWITCHBOARD	FLOOR	
	METER BASE	TOP AT +12"	
	OPEN - STOP - CLOSE SWITCH	+60"	FURNISH SWITCH UNLESS FURNISHED BY ANOTHER DIVISION. INSTALL AND CONNECT COMPLETE. REFER TO RELATED SPECIFICATION SECTIONS.
	HVAC THERMOSTAT	+60"	PROVIDED BY DIVISION 5000 UNO.
	HAND - OFF - AUTO SWITCH	+60"	
	GROUND FAULT PROTECTION		

TELEPHONE / DATA SYMBOLS			
SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	TELEPHONE OUTLET	+18"	
	DATA OUTLET	+18"	
	COMBINATION TELEPHONE/DATA OUTLET	+18"	
	TELEPHONE TERMINAL BOARD	TOP AT 12"	

ELECTRICAL SYMBOL SCHEDULE GENERAL NOTES			
1.	MOUNT ALL OUTLETS, DEVICES, AND EQUIPMENT AT HEIGHTS INDICATED BELOW UNLESS NOTED OTHERWISE ON THE DRAWINGS. UNLESS NOTED OTHERWISE, HEIGHTS ARE GIVEN FROM FINISHED FLOOR TO CENTER OF OUTLET BOX.		
2.	WHERE OUTLETS, DEVICES, AND EQUIPMENT ARE NOTED BY SUBSCRIPTS, REFER TO ABBREVIATION SCHEDULE FOR DEFINED REQUIREMENTS.		
3.	WHERE OUTLETS, DEVICES AND EQUIPMENT ARE NOTED BY THE SUBSCRIPT 'A', MOUNT AT 4" ABOVE COUNTER. IF COUNTER HAS A BACK SPLASH, MOUNT AT 4" ABOVE BACK SPLASH. REFER TO ARCHITECTURAL INTERIOR ELEVATIONS AND COORDINATE WITH CASEWORK SUPPLIER.		
4.	NOT ALL ELECTRICAL SYMBOLS MAY BE USED.		

LIGHTING SYMBOLS			
1. LIGHT FIXTURE SYMBOLS ARE GENERAL IN NATURE AND MAY BE SHOWN ON THE DRAWINGS IN VARIOUS SIZES AND SHAPES. REFER TO THE LIGHT FIXTURE SCHEDULE FOR SPECIFICATION INFORMATION.			
2. ARROWS INDICATE AIMING DIRECTION.			
SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	ARM-MOUNTED SINGLE-HEAD LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	ARM-MOUNTED DOUBLE-HEAD LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	POST-TOP SINGLE-HEAD, LIGHT FIXTURE AND POLE	AS SPECIFIED OR DETAILED	
	WALL-MOUNTED FIXTURE	AS SPECIFIED OR DETAILED	REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT
	LIGHT BOLLARD	AS SPECIFIED OR DETAILED	
	FLOOD LIGHT	AS SPECIFIED OR DETAILED	
	RECESSED WALL FIXTURE OR STEP LIGHT	AS SPECIFIED OR DETAILED	REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT

	FLUORESCENT LIGHT FIXTURES	AS SPECIFIED OR DETAILED	
	PARABOLIC - LOUVERED LIGHT FIXTURES	AS SPECIFIED OR DETAILED	
	RECESSED INDIRECT FLUORESCENT LIGHT FIXTURES	AS SPECIFIED OR DETAILED	
	WALL-MOUNTED LINEAR FLUORESCENT LIGHT FIXTURE	AS SPECIFIED OR DETAILED	
	FLUORESCENT LINEAR WALL WASHER	AS SPECIFIED OR DETAILED	
	RECESSED DOWN LIGHT	AS SPECIFIED OR DETAILED	
	RECESSED WALL-WASHER OR DIRECTIONAL DOWNLIGHT	AS SPECIFIED OR DETAILED	IF SHOWN, ARROW INDICATES AIMING DIRECTION
	SURFACE OR PENDANT-MOUNTED LIGHT FIXTURE	AS SPECIFIED OR DETAILED	
	WALL-MOUNTED LIGHT FIXTURE	AS SPECIFIED OR DETAILED	REFER TO ARCHITECTURAL EXTERIOR ELEVATIONS FOR MOUNTING HEIGHT
	TRACK OR MONO-POINT LIGHT FIXTURE	AS SPECIFIED OR DETAILED	IF SHOWN, ARROW INDICATES AIMING DIRECTION
	WALL SCONCE	AS SPECIFIED OR DETAILED	
	FLUORESCENT EGRESS LIGHT FIXTURE	AS SPECIFIED OR DETAILED	THIS IS AN EXAMPLE OF AN EGRESS LIGHT FIXTURE. EGRESS LIGHT FIXTURES ARE HALF-SHADED DIAGONALLY.
	FLUORESCENT EMERGENCY (NON-EGRESS) LIGHT FIXTURE	AS SPECIFIED OR DETAILED	THIS IS AN EXAMPLE OF AN EMERGENCY (NON-EGRESS) LIGHT FIXTURE. EMERGENCY FIXTURES ARE FULLY-SHADED.
	CEILING MOUNTED EXIT SIGN	CEILING	
	WALL-MOUNTED EXIT SIGN	WALL ABOVE DOOR	DARKENED PORTION OF SIGN INDICATES FACE(S); ARROW(S) INDICATE CHEVRON DIRECTION(S)
	WALL-MOUNTED EXIT SIGN W/ EMERGENCY LIGHT FIXTURE	WALL ABOVE DOOR	
	TIME CLOCK		
	EMERGENCY LIGHT FIXTURE	AS NOTED	
	ELECTRIC PHOTOCCELL	N/A	MOUNT ON ROOF FACING NORTH SKY
	LIGHT FIXTURE CALLOUT (LETTER DENOTES FIXTURE TYPE)		


FIRE ALARM SYMBOLS			
SYMBOL	DESCRIPTION	MOUNTING	REMARKS
	BEAM DETECTOR - TRANSMITTER	4" BELOW CEILING TO TOP OF DETECTOR	
	BEAM DETECTOR - RECEIVER	4" BELOW CEILING TO TOP OF DETECTOR	
	END OF LINE DEVICE	PER MANUFACTURER RECOMMENDATIONS	
	TAMPER SWITCH	AT VALVE	
	WATER FLOW INDICATOR	ON FIRE RISER	
	FIRE/SMOKE DAMPER	TOP AT 12"	
	HEAT DETECTOR	CEILING	
	SMOKE DETECTOR	CEILING	
	DUCT SMOKE DETECTOR	SIDE OF DUCT	
	FIRE ALARM MANUAL STATION	+48"	
	CONTROL MODULE	AT DEVICE(S) TO BE CONTROLLED	
	MONITOR MODULE	AT DEVICE(S) TO MONITOR	
	FAN SHUTDOWN RELAY	AT FAN CONTROL PANEL	
	MAGNETIC DOOR HOLDER	COORDINATE WITH DOOR INSTALLER	COORDINATE WITH DOOR INSTALLER; SUBSCRIPT 'F' INDICATES TO MOUNT AT FLOOR LEVEL
	WATER FLOOD INDICATOR	FLOOR	
	AUDIO HORN		
	MINI AUDIO HORN		
	FIRE ALARM VISUAL STROBE		
	FIRE ALARM AUDIO/VISUAL HORN/STROBE		
	MINI AUDIO/VISUAL HORN/STROBE		
	FIRE ALARM AUDIO SPEAKER		
	FIRE ALARM AUDIO/VISUAL SPEAKER/STROBE		
	FIRE PROTECTION SPRINKLER RISER BELL	+90"	FURNISHED BY FIRE PROTECTION CONTRACTOR AND INSTALLED AND CONNECTED BY DIV. 16000

GENERAL SYMBOLS		
SYMBOL	DESCRIPTION	REMARKS
	KEYED NOTE	
	DETAIL REFERENCE	TOP NUMBER INDICATES DETAIL NUMBER; BOTTOM LETTER-NUMBER INDICATES DRAWING SHEET WHERE DETAIL IS SHOWN; WHERE NOT SPECIFICALLY REFERENCED, DETAIL IS GENERAL IN NATURE AND SHALL APPLY WHERE APPLICABLE.
	ELEVATION REFERENCE	TOP NUMBER INDICATES ELEVATION NUMBER; BOTTOM LETTER-NUMBER INDICATES WHERE ELEVATION IS SHOWN.
	SECTION REFERENCE	TOP NUMBER INDICATES SECTION NUMBER; BOTTOM LETTER NUMBER INDICATES WHERE SECTION IS SHOWN.
	ARCHITECTURAL ROOM NUMBER	
	EQUIPMENT NAME / NUMBER	TOP NUMBER ABBREVIATES EQUIPMENT NAME OR TYPE; BOTTOM NUMBER INDICATES EQUIPMENT NUMBER. REFER TO EQUIPMENT SCHEDULE.
	REVISION NUMBER	USED TO DENOTE CHANGES EITHER ISSUED BY ADDENDUM OR DURING CONSTRUCTION AND TO DENOTE RECORD DRAWING CHANGES.
	BREAKLINE	USED TO BREAK DRAWINGS.

BRANCH CIRCUITING SYMBOLS		
SYMBOL	DESCRIPTION	REMARKS
	1 CIRCUIT, 2 WIRE BRANCH CIRCUIT HOME RUN TO PANEL	ARROWS: NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS REQUIRED.
	2 CIRCUIT, 3 WIRE BRANCH CIRCUIT HOME RUN TO PANEL	SHORT CROSS LINES: NUMBER OF SHORT CROSS LINES INDICATES NUMBER OF PHASE, TRAVELER, AND/OR SWITCHED CONDUCTORS REQUIRED IF GREATER THAN 1 (ONE).
	3 CIRCUIT, 4 WIRE BRANCH CIRCUIT HOME RUN TO PANEL	LONG CROSS LINES: NUMBER OF LONG CROSS LINES INDICATES NUMBER OF NEUTRAL CONDUCTORS REQUIRED FOR MULTI-WIRE HOME RUNS.
	MULTIPLE WIRE BRANCH CIRCUITING BETWEEN FIXTURES, SWITCHES, DEVICES, ETC.	EQUIPMENT GROUND AND ISOLATED GROUND CONDUCTORS: EQUIPMENT GROUND AND ISOLATED GROUND CONDUCTORS ARE NOT SHOWN, BUT ARE REQUIRED AS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS.
	BRANCH CIRCUITING (U.N.O.) TURNED UP OR TOWARDS OBSERVER.	
	BRANCH CIRCUITING (U.N.O.) TURNED DOWN OR AWAY FROM OBSERVER.	
	BRANCH CIRCUITING (U.N.O.) CONTINUATION	
	CONDUIT STUB-IN	CAP AND MARK
	INCOMING SERVICE	
	JUNCTION BOX	MOUNT AS NOTED. SUBSCRIPT 'F' INDICATES TO PROVIDE A FLOOR BOX WITH BLANK COVERPLATE

ABBREVIATION SCHEDULE			
NOTE: NOT ALL ABBREVIATIONS MAY BE USED.			
A	ABOVE COUNTER	ISO	ISOLATED
A	AMP OR AMPS	KVA	KILO VOLT AMPERES
ADJ	ADJACENT	KW	KILOWATTS
AFF	ABOVE FINISHED FLOOR	LFMC	LIQUID-TIGHT METAL CONDUIT
AHJ	AUTHORITY HAVING JURISDICTION	LFNC	LIQUID-TIGHT NONMETAL CONDUIT
AL	ALUMINUM	MCA	MAIN LUGS ONLY
C	CONDUIT	MLO	MAIN LUGS ONLY
CB	CIRCUIT BREAKER	NC	NORMALLY CLOSED
CKT	CIRCUIT	NI/C	NOT IN CONTRACT
C.O.S	CONVENIENCE OUTLETS	NL	NIGHT LIGHT
CU	COPPER	N.O.	NORMALLY OPEN
EA	EACH	O.C.	ON CENTER(S)
ELEC	ELECTRICAL	OCPT	OVER CURRENT PROTECTION
EM	EMERGENCY	QTY	QUANTITY
ENT	ELECTRIC METALLIC TUBING	R	REMOVE
ENT	ELECTRIC NONMETALLIC TUBING	REQ.	REQUIREMENTS
EQUIP	EQUIPMENT	RMC	RIGID METAL CONDUIT
EW	ELECTRIC WATER COOLER	RNC	RIGID NONMETALLIC CONDUIT
E, EX	EXISTING	RR	REMOVE AND RELOCATE
EXP	EXPLOSION PROOF	SS	SURGE SUPPRESSION
FA	FIRE ALARM	SCP	SECURITY CONTROL PANEL
FACP	FIRE ALARM CONTROL PANEL	TR	TAMPER RESISTANT
FLA	FULL LOAD AMPS	TYP	TYPICAL
FM	FLEXIBLE METAL CONDUIT	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
FOB	FREIGHT ON BOARD	UF	UNDER FLOOR
GND	GROUND CONDUCTOR	UG	UNDERGROUND
HOA	HAND-OFF-AUTO	UNO.	UNLESS NOTED OTHERWISE
HP	HORSE POWER	W	WITH
IG	ISOLATED GROUND	WP	WEATHER PROOF
IMC	INTERMEDIATE METAL CONDUIT	XPFR	TRANSFORMER
INS	INSULATED		

ELECTRICAL SHEET INDEX	
EG001 EG002 EG003 ES101 EL101 EP101 EP401 EP101 EP801	SYMBOL SCHEDULE DETAILS DETAILS AND RISER DIAGRAMS SITE PLAN LIGHTING PLAN POWER PLAN ENLARGED DRAWINGS & SCHEDULES ONE-LINE PANEL SCHEDULES & ENERGY CODE



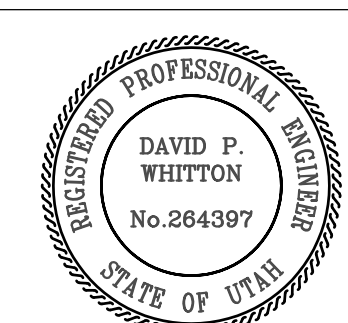
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UTAH DIVISION OF  
FACILITIES, CONSTRUCTION  
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4110 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

DFCM  
PROJECT NO. 07284110  
CONTRACT NO. 087137

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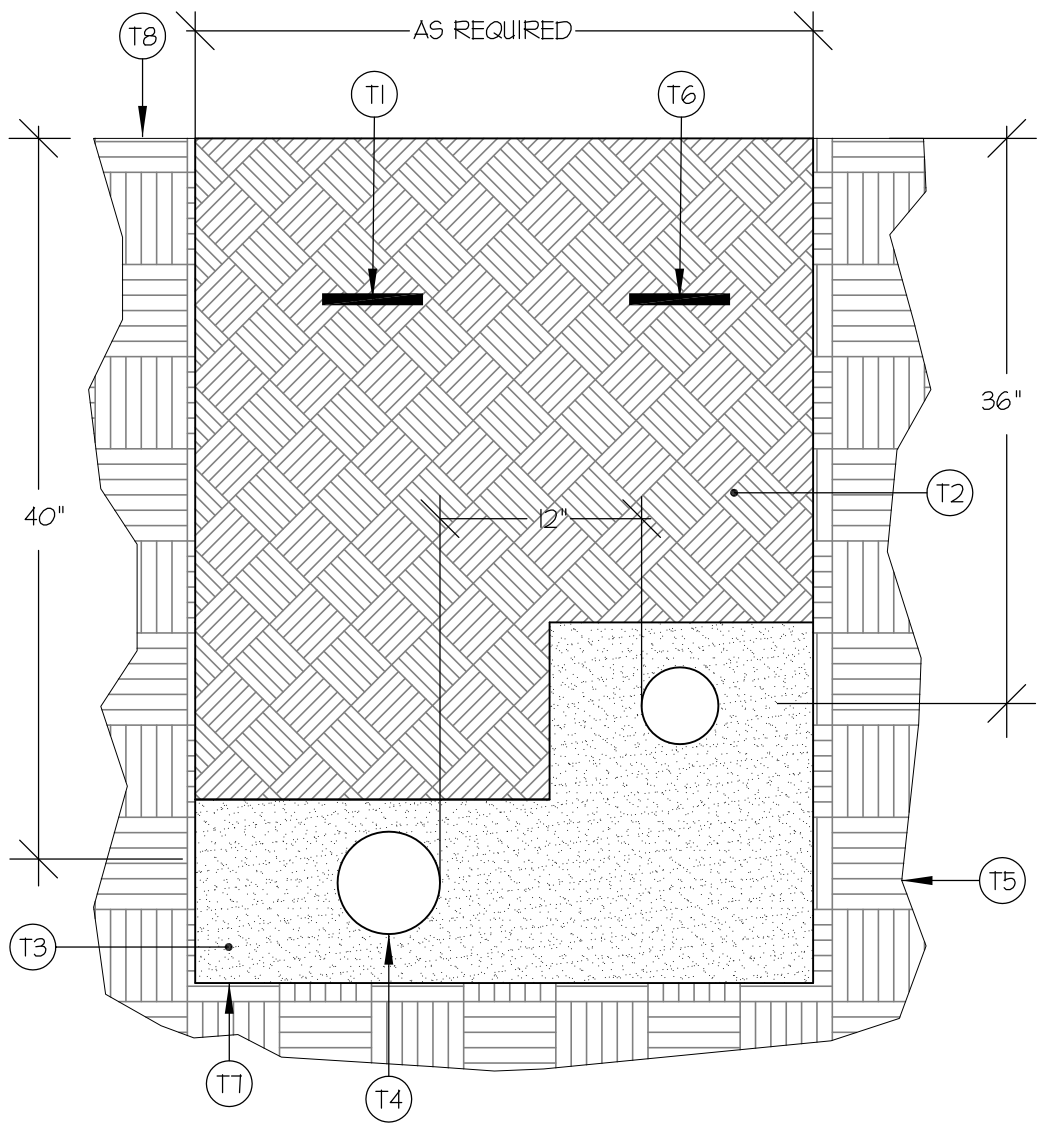
SYMBOLS

**EG001**  
SHEET OF









**TRENCH KEYED NOTES:**

- (T1) MARKER TAPE WITH THE WORDS, "CAUTION BURIED ELECTRIC CONDUITS BELOW" DIRECTLY OVER POWER CONDUITS 6" MINIMUM BELOW GRADE.
- (T2) CLEAN BACKFILL CONTAINING NO ROCKS LARGER THAN 4" DIA.
- (T3) BACKFILL MATERIAL WITHIN 4" OF THE CONDUIT SHALL PASS THROUGH A 3/4" SIEVE FRAME AND CONTAIN LESS THAN 30 PERCENT ROCK SOLIDS BY VOLUME.
- (T4) ALL CONDUITS SHOWN SHALL BE SCHEDULE 40 P.V.C.
- (T5) UNDISTURBED EARTH.
- (T6) MARKER TAPE WITH THE WORDS, "CAUTION BURIED DATA/COMMUNICATION CONDUIT BELOW" DIRECTLY OVER DATA/COMM CONDUITS.
- (T7) TRENCHES SHALL BE A UNIFORM DEPTH FOR ENTIRE LENGTH OF TRENCH SO CONDUITS CAN SIT FLAT (HORIZONTAL) WITH THE GROUND.
- (T8) FINISHED GRADE.

**TRENCH GENERAL NOTES:**

1. PROVIDE PULL ROPES IN ALL CONDUITS.
2. HORIZONTAL AND VERTICAL SEPARATION BETWEEN CONDUIT SHALL BE MAINTAINED BY INSTALLING HIGH IMPACT SPACERS WITH HORIZONTAL INTERVALS OF EIGHT FEET.
3. ALL MARKER TAPE SHALL CONTAIN #10 TRACER WIRE.
4. VERIFY AND COMPLY WITH ALL ROCKY MOUNTAIN POWER AND QWEST REQUIREMENTS.

**UTILITY COORDINATION REQUIREMENTS:**

THE ELECTRICAL CONTRACTOR SHALL COORDINATE AND VERIFY ALL REQUIREMENTS AND LOCATIONS TO EXTEND CONDUITS FOR UTILITY USE WITHIN 2 WEEKS OF THE CONTRACT AWARD. THE CONTRACTOR SHALL NOT ROUGH-IN ANY CONDUITS UNTIL THE UTILITY COORDINATION IS COMPLETE AND ALL LOCATIONS ARE KNOWN. THE CONTRACTOR SHALL PROVIDE TO THE ARCHITECT AND ENGINEER A WRITTEN, SIGNED STATEMENT, INCLUDING A SKETCH OF LOCATIONS, FROM THE UTILITY COMPANY NOTIFYING THEM THAT THEY HAVE COORDINATED AND VERIFIED ALL REQUIREMENTS. IF THE CONTRACTOR DOES NOT COORDINATE AND VERIFY THE REQUIREMENTS WITH THE UTILITIES OR PROVIDE A WRITTEN STATEMENT FROM THE UTILITY COMPANY TO THE ARCHITECT AND ENGINEER ALL CHANGES DUE TO LACK OF COORDINATION WILL BE DONE AT NO ADDITIONAL EXPENSE TO THE OWNER.

**SITE GENERAL NOTES:**

1. PROVIDE ALL REQUIRED TRENCHING, BACKFILLING, ETC. FOR ALL CONDUITS. PROVIDE REQUIRED BACKFILL MATERIALS AS DIRECTED BY EACH UTILITY.
2. VERIFY ALL ROCKY MOUNTAIN POWER AND QWEST REQUIREMENTS WITH EACH UTILITY PRIOR TO BID.
3. OWNER TO PAY ALL RELATED UP FRONT COSTS AND FEES REQUIRED BY EACH UTILITY IN THE PROJECT.
4. COORDINATE INSTALLATION OF SERVICE UTILITY EQUIPMENT, WITH RESPECTIVE UTILITY REPRESENTATIVE.
5. ROUTE CONDUITS A MINIMUM OF 2" BELOW THE BUILDING FLOOR SLAB.

**KEYED NOTES:**

- (1) EXTEND ONE (2) 4" CONDUIT WITH 1/4" NYLON PULL ROPE FROM THE TELEPHONE TERMINAL BOARD OUT TO PONY EXPRESS ROAD FOR TELEPHONE SERVICE TO THE BUILDING. BURY THE CONDUIT A MINIMUM OF 36" BELOW GRADE. VERIFY AND COMPLY WITH ALL QWEST REQUIREMENTS.
- (2) REFER TO THE ONE-LINE DIAGRAM FOR CONDUIT AND CONDUCTOR REQUIREMENTS.
- (3) COORDINATE THE INSTALLATION OF A NEW POWER POLE WITH ROCKY MOUNTAIN POWER. THE POLE SHALL BE PROVIDED BY ROCKY MOUNTAIN POWER.



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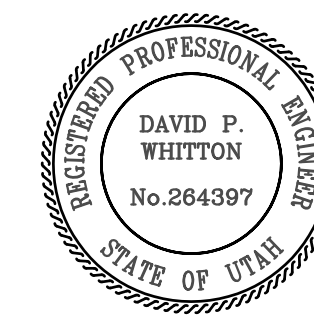
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**SITE PLAN**

**ES101**

SHEET OF

**1 TRENCH DETAIL**  
SCALE: NONE ROCKY MOUNTAIN POWER/QWEST

**1 SITE PLAN**  
SCALE: 1"=20'-0"



GENERAL NOTES:

1. ALL CONDUIT RUNS BELOW 8'-0" AFF. SHALL BE GALVANIZED RIGID CONDUIT RAN BEHIND THE PLYWOOD ON THE EXTERIOR WALL.
2. IT IS THE INTENT THAT ALL 'HBI' AND 'HBIE' HIGH BAY LIGHT FIXTURES SHALL BE MOUNTED AT 20'-0" ABOVE THE FINISHED FLOOR. COORDINATE WITH OWNER PROVIDED EQUIPMENT FOR FINAL PLACEMENT.

KEYED NOTES:

- 1 REMOTE BATTERY PACK FOR EXTERIOR EGRESS LIGHTS. BATTERY PACK SHALL BE MOUNTED WITHIN 5' OF EXTERIOR FIXTURE. VERIFY MAXIMUM LENGTH WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 2 PROVIDE HUBBELL MYTEC OMNI-DT1000 WITH ASSOCIATED POWER PACK (OR APPROVED EQUIVALENT). INSTALL PER MANUFACTURER'S RECOMMENDED PRACTICES.
- 3 EMERGENCY EGRESS LIGHT SHALL HAVE AN UNSWITCHED HOT CONDUCTOR FROM CIRCUIT SHOWN CONNECTED AHEAD OF THE LIGHTING CONTROL RELAY.
- 4 CHAIN HANG THE LIGHTS IN THIS ROOM FROM THE STRUCTURE ABOVE. COORDINATE EXACT PLACEMENT WITH EQUIPMENT IN ROOM.



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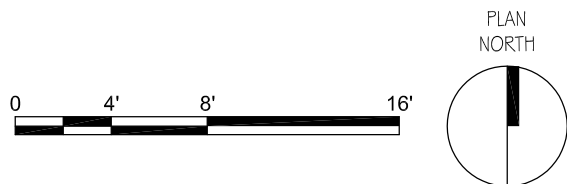
LIGHTING PLAN

EL101

SHEET OF

1 LIGHTING PLAN

SCALE: 1/8"=1'-0"

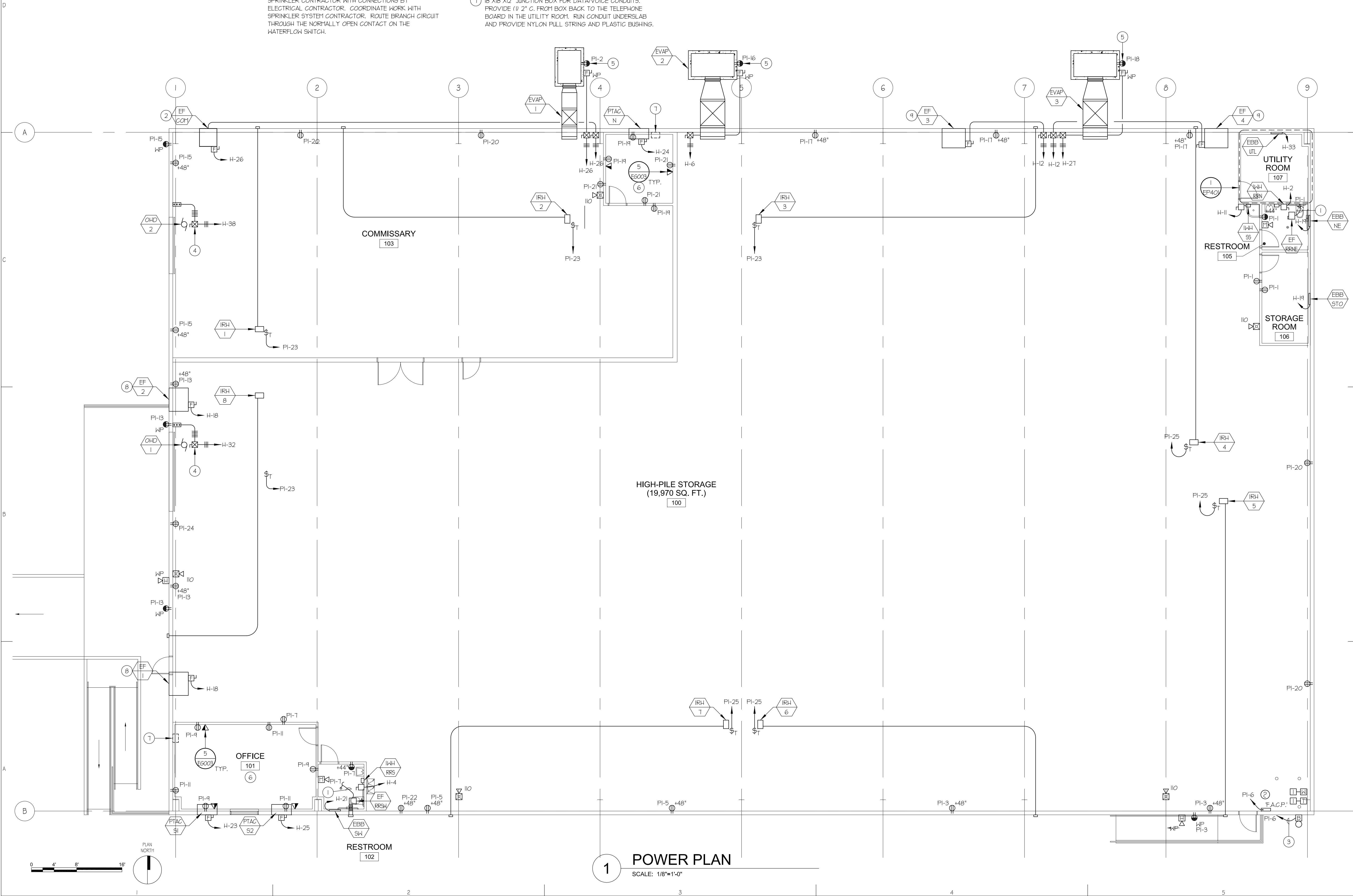


GENERAL NOTES:

- ALL CONDUIT RUNS BELOW 8'-0" A.F.F. SHALL BE GALVANIZED RIGID CONDUIT RAN BEHIND THE PLYWOOD ON THE EXTERIOR WALL.
- CONDUITS SHALL BE RUN UNDERGROUND WHERE POSSIBLE TO DECREASE THE LENGTH OF THE RUN. CONCEAL ALL CONDUITS WHERE POSSIBLE.

KEYED NOTES:

- EXHAUST FAN TO BE CONTROLLED BY THE OCCUPANCY SENSOR IN THE ROOM. PROVIDE ANY ADDITIONAL MODULES OR CONTROL PACKS REQUIRED. SEE DETAIL 3 ON SHEET EG003 FOR MORE INFORMATION.
- EXHAUST FAN TO BE INTERLOCKED WITH EVAPORATIVE COOLER #1 SO THAT BOTH ARE SWITCHED ON AND OFF AT THE SAME TIME. PROVIDE MANUFACTURER RECOMMENDED CONTROL CABLES AS REQUIRED.
- SPRINKLER SYSTEM FLOW BELL. BELL PROVIDED BY THE SPRINKLER CONTRACTOR WITH CONNECTIONS BY ELECTRICAL CONTRACTOR. COORDINATE WORK WITH SPRINKLER SYSTEM CONTRACTOR. ROUTE BRANCH CIRCUIT THROUGH THE NORMALLY OPEN CONTACT ON THE WATERFLOW SWITCH.
- VERIFY THE EXACT SIZE AND LOAD OF OVERHEAD DOOR MOTOR WITH ARCHITECT PRIOR TO MAKING FINAL CONNECTIONS.
- PROVIDE RECEPTACLE MOUNTED TO THE UNIT FOR EVAPORATIVE PUMP FEED.
- TERMINATE ALL 1" VOICE/DATA CONDUITS IN THIS ROOM INTO A 18"X18"X12" JUNCTION BOX MOUNTED TO THE EXTERIOR WALL ABOVE THE SPACE. SEE DETAIL 5 ON EG003.
- 18"X18"X12" JUNCTION BOX FOR DATA/VOICE CONDUITS. PROVIDE (1) 2" C. FROM BOX BACK TO THE TELEPHONE BOARD IN THE UTILITY ROOM. RUN CONDUIT UNDERSLAB AND PROVIDE NYLON PULL STRING AND PLASTIC BUSHING.
- EXHAUST FAN TO BE INTERLOCKED WITH EVAPORATIVE COOLER #2 SO THAT BOTH ARE SWITCHED ON AND OFF AT THE SAME TIME. PROVIDE MANUFACTURER RECOMMENDED CONTROL CABLES AS REQUIRED.
- EXHAUST FAN TO BE INTERLOCKED WITH EVAPORATIVE COOLER #3 SO THAT BOTH ARE SWITCHED ON AND OFF AT THE SAME TIME. PROVIDE MANUFACTURER RECOMMENDED CONTROL CABLES AS REQUIRED.



POWER PLAN

SCALE: 1/8"=1'-0"



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UCI PRODUCTION WAREHOUSE

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UTAH DIVISION OF FACILITIES, CONSTRUCTION AND MANAGEMENT (DFCM)

4110 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114

DFCM  
PROJECT NO. 07284110  
CONTRACT NO. 087137

CD 02/25/08 FINAL REVIEW

PROJECT NO:

CAD DWG FILE:

DRAWN BY: MCC

CHECKED BY: DPW

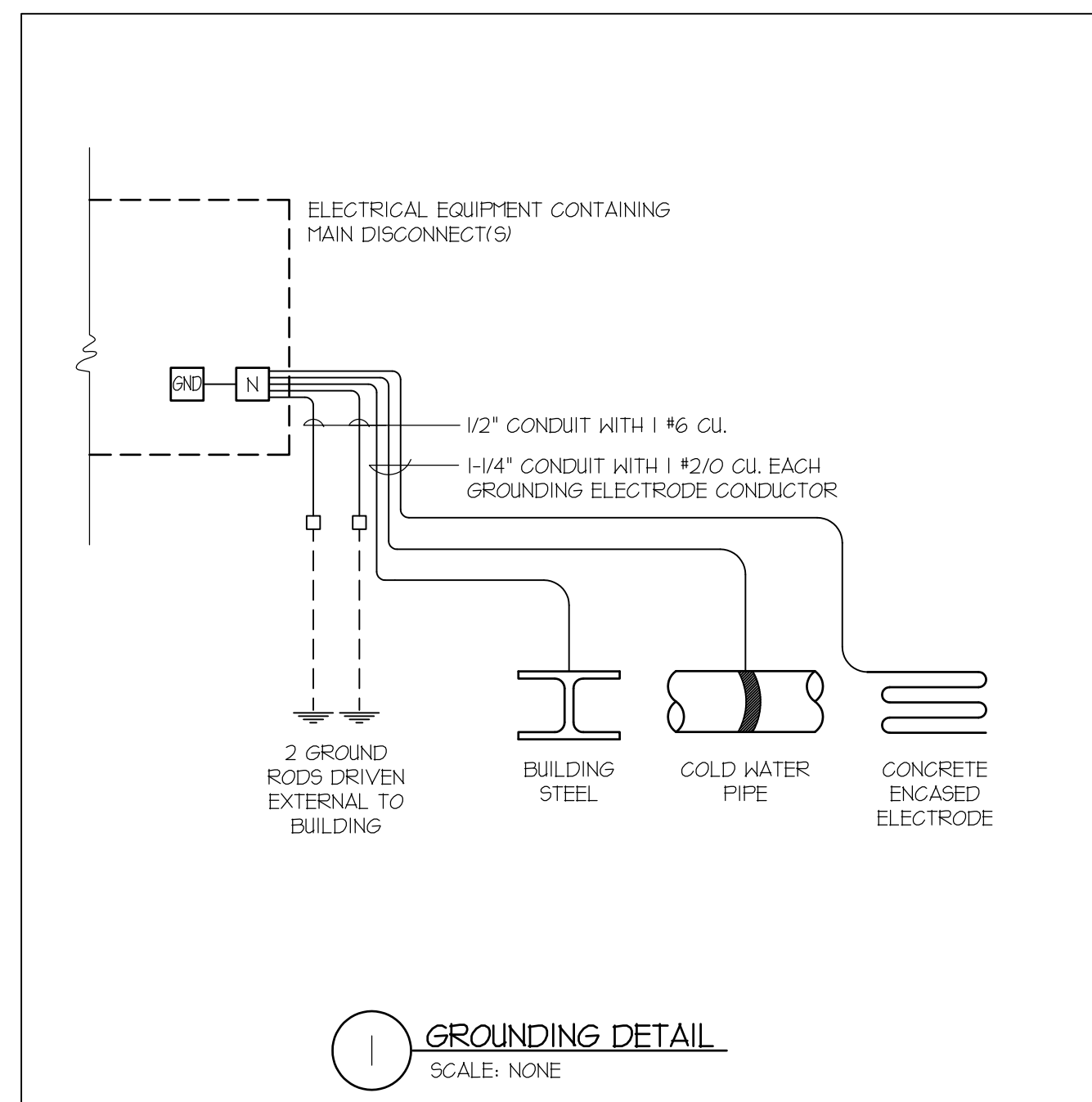
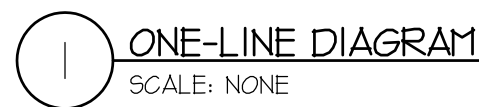
POWER PLAN

EP101

SHEET OF







ONE-LINE SYMBOLS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	LIGHTING AND APPLIANCE PANEL BOARD		FUSE CUT OUT
	LOAD CENTER		DRAWOUT CIRCUIT BREAKER
	CIRCUIT BREAKER		MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER
	CIRCUIT BREAKER & ENCLOSURE		THERMAL OVERLOAD
	FUSED SWITCH		RELAY/COIL
	MOTOR		NORMALLY CLOSED CONTACT
	TRANSIENT VOLTAGE SURGE SUPPRESSOR		NORMALLY OPEN CONTACT
	DISCONNECT SWITCH		KEY INTERLOCK
	FUSED DISCONNECT SWITCH		COMBINATION FUSIBLE STARTER WITH THERMAL OVERLOAD
	METER		COMBINATION MCP STARTER WITH THERMAL OVERLOAD
	CT TRANSFORMER		ELECTRONIC CIRCUIT BREAKER
	GROUNDING ELECTRODE & CONDUCTOR		ELECTRONIC CIRCUIT BREAKER WITH GROUND FAULT PROTECTION
	AUTOMATIC TRANSFER SWITCH		SHUNT TRIP CIRCUIT BREAKER
	GENERATOR		PHASE FAILURE RELAY
	GUTTER		MUSHROOM PUSH BUTTON
	TRANSFORMER		ISOLATION BYPASS AUTOMATIC TRANSFER SWITCH
	POWER FACTOR CORRECTION CAPACITOR & ENCLOSURE		
	CT CABINET PER UTILITIES REQUIREMENTS		
	PULLING SECTION PER UTILITIES REQUIREMENTS		



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CD 02/25/08 FINAL REVIEW

PROJECT NO:
CAD DWG FILE:
DRAWN BY: MCC
CHECKED BY: DPW

## ONE-LINE DIAGRAM

# EP701

SHEET OF



## COMcheck Software Version 3.4.2 Lighting Compliance Certificate

### 2006 IECC

Report Date: 02/28/08

Data filename: W:\2008-001.00 - UCI Production Warehouse\Misc\Calculations\UCI\Warehouse.cck

#### Section 1: Project Information

Project Title:

Construction Site:

Owner/Agent:

Designer/Contractor:

#### Section 2: General Information

Building Use Description by: **Activity Type**  
Project Type: **New Construction**

Activity Type(s) **Floor Area**  
Warehouse 24550

#### Section 3: Requirements Checklist

##### Interior Lighting:

- ☐ 1. Total actual watts must be less than or equal to total allowed watts.
- | Allowed Watts | Actual Watts | Complies |
|---------------|--------------|----------|
| 19640         | 9588         | YES      |

##### Exterior Lighting:

- ☐ 2. Efficacy greater than 45 lumens/W.  
*Exceptions:*  
Specialized lighting highlighting features of historic buildings; signage; safety or security lighting; low-voltage landscape lighting.
- ☐ 3. Comply with Sections 505.2.4 and 505.6 of IECC 2006 and attach documentation.

##### Controls, Switching, and Wiring:

- ☐ 4. Independent controls for each space (switch/occupancy sensor).  
*Exceptions:*  
Areas designated as security or emergency areas that must be continuously illuminated.  
Lighting in stairways or corridors that are elements of the means of egress.
- ☐ 5. Master switch at entry to hotel/motel guest room.
- ☐ 6. Individual dwelling units separately metered.
- ☐ 7. Each space provided with a manual control to provide uniform light reduction by at least 50%.  
*exceptions:*  
Only one luminaire in space;  
An occupant-sensing device controls the area;  
The area is a corridor, storeroom, restroom, public lobby or sleeping unit.  
Areas that use less than 0.6 Watts/sq. ft.
- ☐ 8. Automatic lighting shutoff control in buildings larger than 5,000 sq. ft.  
*Exceptions:*  
Sleeping units, patient care areas, and spaces where automatic shutoff would endanger safety or security.

Page 1 of 3

- ☐ 9. Photocell/astronomical time switch on exterior lights.  
*Exceptions:*  
Lighting intended for 24 hour use.
- ☐ 10. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).  
*Exceptions:*  
Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

#### Section 4: Compliance Statement

**Compliance Statement:** The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2006 IECC requirements in COMcheck Version 3.4.2 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title Signature Date

Page 2 of 3

### LIGHTING AND APPLIANCE PANELBOARD SCHEDULE

PANEL NAME: 1H TYPE: NF CIRCUIT BREAKERS: ☒ BOLT ON ☐ PLUG ON 271 / 480 VOLTAGE 3 PH 4 W  
☒ ENGRAVED NAME TAGS BUS MATERIAL: ☐ ALUM BUS ☒ CU BUS GROUND: ☒ GROUND BUS ☐ ISOL GND BUS NEUTRAL: ☒ 100% ☐ 200% LUGS: ☒ MAIN ☒ SUB-FEED ☐ FEED-THROUGH MAIN BREAKER: ☐ AMP'S         
BUS AMP'S: 225

#### BRANCH BREAKERS

NOTES	ITEM	AMP	POLE	WIRE SIZE	CIR. NO.	LEFT PHASE LOAD			RIGHT PHASE LOAD			CIR. NO.	AMP	POLE	WIRE SIZE	ITEM	NOTES
						A	B	C	A	B	C						
	WAREHOUSE LIGHTING	20	1	10	1	2500	2500		6094			2	30	1	10	WH-HRRN WATER HEATER	
	WAREHOUSE LIGHTING	20	1	10	3				6094			4	30	1	8	WH-HRRS WATER HEATER	
	WAREHOUSE LIGHTING	20	1	10	5			2500		3045		6	20	3	12	EVAP-2	
	WAREHOUSE LIGHTING	20	1	10	7	2500						8	-	-	-	-	
	SMALL ROOM LIGHTING	20	1	12	4		1088			3045		10	-	-	-	-	
	WH-HS WATER HEATER	40	1	10	11			10000				12	20	3	12	EF-3EF-4	
	EXTERIOR LIGHTING	20	1	10	13	1500			830			14	-	-	-	-	
	EXTERIOR LIGHTING	20	1	8	15		600			830		16	-	-	-	-	
	EXTERIOR LIGHTING	20	1	8	17			1500				18	20	3	10	EF-1EF-2	
	EBB-STOEBB-NE	20	1	12	14	800			830			20	-	-	-	-	
	EBB-SH	20	1	10	21		400			830		22	-	-	-	-	
	PTAC-SI	25	1	8	23			6094			6094	24	25	1	8	PTAC-N	
	PTAC-B2	25	1	8	25	6094			1080			26	20	3	10	EVAP-1 & EF-CO1	
	EVAP-3	20	3	12	27		3045				1080	28	-	-	-	-	
	-	-	-	-	29			3045			1080	30	-	-	-	-	
	-	-	-	-	31	3045			6420			32	30	3	8	OH4-1	
	EBB-SH	20	1	12	33		400			6420		34	-	-	-	-	
	SPARE	20	1		35					6420		36	-	-	-	-	
	SPARE	20	1		37					6420		38	30	3	8	OH4-2	
	SPARE	20	1		39					6420		40	-	-	-	-	
	SPARE	20	1		41					6420		42	-	-	-	-	

FRONT: ☒ STANDARD ☐ HINGED ☐ DOOR-IN-DOOR  
MOUNTING: ☐ FLUSH ☒ SURFACE ☐ SURFACE W/ SKIRT ABOVE ☐ SURFACE W/ SKIRT BELOW  
TVSS: ☒ NONE ☐ CATEGORY "C" ☐ CATEGORY "B" ☐ CATEGORY "A"  
NEHA RATING: ☒ NEHA 1 ☐ NEHA 3R ☐ NEHA 4X ☐ NEHA 12 ☐ STAINLESS STEEL  
TOTAL CONNECTED LOAD: 124,168  
SHORT CIRCUIT RATING: ☐ SERIES - RATED ☒ FULLY - RATED  
42,000 AMP'S R15 S11

REFER TO ONE-LINE DIAGRAM FOR FEEDER, CONDUIT AND CONDUCTOR SIZES

### LIGHTING AND APPLIANCE PANELBOARD SCHEDULE

PANEL NAME: PI TYPE: NAGD CIRCUIT BREAKERS: ☒ BOLT ON ☐ PLUG ON 120 / 208 VOLTAGE 3 PH 4 W  
☒ ENGRAVED NAME TAGS BUS MATERIAL: ☐ ALUM BUS ☒ CU BUS GROUND: ☒ GROUND BUS ☐ ISOL GND BUS NEUTRAL: ☒ 100% ☐ 200% LUGS: ☒ MAIN ☒ SUB-FEED ☐ FEED-THROUGH MAIN BREAKER: ☒ AMP'S 110  
BUS AMP'S: 115

#### BRANCH BREAKERS

NOTES	ITEM	AMP	POLE	WIRE SIZE	CIR. NO.	LEFT PHASE LOAD			RIGHT PHASE LOAD			CIR. NO.	AMP	POLE	WIRE SIZE	ITEM	NOTES
						A	B	C	A	B	C						
	C.O. UTILITY/STORAGE/RR	20	1	12	1	1056			1116			2	20	1	12	EVAP-1 PUMP C.O.	
	SOUTHEAST C.O.	20	1	10	3		540			200		4	20	1	12	TIME CLOCK	
	SOUTH C.O.	20	1	10	5			540			300	6	20	1	12	PACP	
	SOUTH RR	20	1	10	7	1056			540			8	20	1	12	TELEPHONE BOARD	
	SOUTH OFFICE	20	1	10	4		540			540		10	20	1	12	TELEPHONE BOARD	
	SOUTH OFFICE	20	1	10	11			540			300	12	20	1	12	IRRIGATION CLOCK	
	NEST C.O.	20	1	10	13	120			180			14	20	1	12	UTILITY ROOM C.O.	
	NEST C.O.	20	1	10	15		540			1116		16	20	1	12	EVAP-2 PUMP C.O.	
	NORTH C.O.	20	1	10	17			540			1116	18	20	1	12	EVAP-3 PUMP C.O.	
	NORTH OFFICE	20	1	10	14	120			360			20	20	1	12	EAST HALL C.O.	
	NORTH OFFICE	20	1	10	21		120			500		22	20	1	12	ELEC. FORK LIFT CHARGER	
	IRH-1238	20	1	8	23			480			1000	24	20	1	12	CARDBOARD CRUSHER	
	IRH-4567	20	1	8	25	480						26	20	1		SPARE	
	SPARE	20	1		27							28	20	1		SPARE	
	SPARE	20	1		29							30	20	1		SPARE	
	SPARE	20	1		31							32	20	1		SPARE	
	SPARE	20	1		33							34	20	1		SPARE	
	SPARE	20	1		35							36	20	1		SPARE	
	SPARE	20	1		37							38	20	1		SPARE	
	SPARE	20	1		39							40	20	1		SPARE	
	SPARE	20	1		41							42	20	1		SPARE	

FRONT: ☒ STANDARD ☐ HINGED ☐ DOOR-IN-DOOR  
MOUNTING: ☐ FLUSH ☒ SURFACE ☐ SURFACE W/ SKIRT ABOVE ☐ SURFACE W/ SKIRT BELOW  
TVSS: ☒ NONE ☐ CATEGORY "C" ☐ CATEGORY "B" ☐ CATEGORY "A"  
NEHA RATING: ☒ NEHA 1 ☐ NEHA 3R ☐ NEHA 4X ☐ NEHA 12 ☐ STAINLESS STEEL  
TOTAL CONNECTED LOAD: 15,420  
SHORT CIRCUIT RATING: ☐ SERIES - RATED ☒ FULLY - RATED  
10,000 AMP'S R15 S11

REFER TO ONE-LINE DIAGRAM FOR FEEDER, CONDUIT AND CONDUCTOR SIZES

- PANELBOARD SCHEDULE NOTES:  
1. PROVIDE CLASS A GROUND FAULT INTERRUPTER TYPE CIRCUIT BREAKER.  
2. PROVIDE ARC FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER.  
3. PROVIDE 30 MILLIAMPERE EQUIPMENT GROUND FAULT PROTECTOR TYPE CIRCUIT BREAKER.  
4. PROVIDE SHUNT-TRIP TYPE CIRCUIT BREAKER WITH 120V COIL.  
5. PROVIDE HACR RATED CIRCUIT BREAKER.  
6. PROVIDE HANDLE CLAMP FOR HOLDING CIRCUIT BREAKER IN THE "ON" OR "OFF" POSITION.  
7. PROVIDE SWITCHING RATED CIRCUIT BREAKER.  
8. PROVIDE NEW CIRCUIT BREAKER IN EXISTING PANELBOARD (WHERE PANEL IS INDICATED AS EXISTING) OF SAME MANUFACTURER AND A.I.C. RATING AS EXISTING.  
9. EXISTING LOAD.

## PANEL LEGEND

-	H
-	PI



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CD 02/25/08 FINAL REVIEW

PROJECT NO:  
CAD DWG FILE:  
DRAWN BY: MCC  
CHECKED BY: DPW

## PANEL SCHEDULES & ENERGY CODE

# EP801

SHEET OF



## COMcheck Software Version 3.4.2 Lighting Application Worksheet

### 2006 IECC

Report Date:

Data filename: W:\2008-001.00 - UCI Production Warehouse\Misc\Calculations\UCI\Warehouse.cck

#### Section 1: Allowed Lighting Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
Warehouse	24550	0.8	19640

Total Allowed Watts = 19640

#### Section 2: Actual Lighting Power Calculation

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Warehouse (24550 sq.ft.)				
Linear Fluorescent 1: SW4ICR4: 48" T8 32W / Electronic	2	5	64	320
Linear Fluorescent 2: GP43: 48" T8 32W / Electronic	3	8	96	768
HID 1: HB1: Metal Halide 250W / Electronic	1	34	250	8500
Total Actual Watts =				9588

#### Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Actual Watts is greater than or equal to zero, the building complies.

Total Allowed Watts = 19640  
Total Actual Watts = 9588  
Project Compliance = 10052

Lighting PASSES: Design 51% better than code.

Page 3 of 3